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The Small High School

BY

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THE SMALL HIGH SCHOOL

INTRODUCTION

During the last thirty-five years the number of public secondary schools in the United States has increased from 2,771 to more than 20,000. In 1890 the number of pupils enrolled in our public high schools totaled 211,596. Figures published by the United States Bureau of Education [1] based upon data gathered in 1923-1924 indicate that at that time 2,538,381 boys and girls were enrolled in our public secondary schools. This phenomenal development of secondary education has brought with it some serious problems to which students in this field have been giving careful attention.

The financing of these schools, the training of the necessary teachers, the selection and development of teaching materials, the planning of the physical plants, such problems have demanded and still demand painstaking study. It is obvious that any intelligent attempt to solve these and other problems of the American high school must take into account the conditions actually found within the schools. Just as there will be variation in the needs of the communities served by different schools, in the composition of their student bodies, in the financial resources of their districts, and in numerous other matters, so will there be variations in the problems to be solved in the improvement of their work.

SIGNIFICANCE OF THE SMALL HIGH SCHOOL

There are 1,310 high schools in this country which enroll more than 500 pupils each.[2] Six hundred seven of these schools have an enrollment exceeding 1,000 pupils. With their many departments, their wide range of courses, their spectacular activities, these schools have attracted a large part of the attention that has been directed to the field of secondary education. It is not surprising that these schools have received much more

[1] *Statistics of Public High Schools 1923–1924.* U. S. Bureau of Education, Bulletin 1925, No. 40.
[2] See Table I.

attention than has been given the smaller schools. There is no reason to question their importance. The enormous numbers they serve, and the financial outlay which they represent abundantly justify any measures that will add to the value of their work. However, it must be remembered that a very large number of American boys and girls are in high schools whose average enrollment is considerably less than 500. Indeed, considering the country as a whole, a high school of the average size enrolls approximately 199 pupils.[3] Table I gives the facts relative to the size of high schools in the United States as a whole and in eight of the separate states.

TABLE I

DISTRIBUTION OF HIGH SCHOOLS ACCORDING TO SIZE 1923–24 *

Number of Pupils	Number of High Schools								
	United States	Virginia	North Dakota	New York	Kentucky	Oregon	Missouri	Iowa	Pennsylvania
1–50	5,412	173	229	227	211	120	230	263	307
51–100	4,042	113	63	156	89	40	192	255	181
101–150	1,744	29	26	80	28	16	77	84	100
151–200	882	12	5	42	13	7	28	45	78
201–250	547	5	6	17	10	4	13	15	44
251–300	362	5	4	13	4	6	13	12	23
301–350	277	2		22	8	8	6	14	22
351–400	218			13	2	2	3	12	21
401–450	191	3		11	1	3	5	4	19
451–500	133			6	1	1	4	4	15
501–550	117	2		6		2	1	6	20
551–600	103	1		5	1	2	2	5	9
601–650	116	1	1	3	1		2	6	6
651–700	77		1	2			4	1	6
701–750	62	1		2	1	1	2	2	5
751–800	65				1		1	2	3
801–850	63	2		3			1	1	5
851–900	40	1		2	1	1	1	1	9
901–950	37	1	1	6	1		1	1	2
951–1000	37	2		2					5
Over 1000	614	7		83	3	7	18	10	53
Totals	15,139	360	336	701	376	220	604	743	933
Median	76.68	54.12	36.69	89.59	44.96	45.84	69.75	73.84	94.07

* Table I was compiled in October, 1925, and is based upon data secured by the Bureau of Education from 15,139 high schools. Frank M. Phillips, Chief of the Division of Statistics, Bureau of Education, in a statement dated November 12, 1925, says, "It is quite likely that attendance figures for the whole number of high schools would show the average size to be somewhat less than is shown by the schools represented in the table."

Analysis of Table I shows that the median high school of the 15,139 represented enrolls fewer than seventy-seven pupils. The medians for the eight states shown are Virginia, 55; North Da-

[3] United States Bureau of Education, Bulletin 1925, No. 40.

kota, 37; New York, 90; Kentucky, 45; Oregon, 46; Missouri, 70; Iowa, 74; and Pennsylvania, 95.

It is not possible to know exactly the total number of pupils enrolled in our smaller schools. This is partly because educators themselves are not in complete agreement as to what actually constitutes a high school and partly because of the difficulty encountered in securing complete information. Statistics on small high schools tend toward unreliability in the same manner as do statistics on consolidated schools and junior high schools. In spite of the lack of accurate figures it is possible to make an estimate which is so conservative that few or none will seriously question it. The United States Bureau of Education's statistics for 1921-22 [4] show that 775,537 high school pupils lived either in rural areas or in towns and villages of fewer than 2,500 population. Taking this into account and considering the facts brought out in Table I, it seems perfectly safe to assert that fully 500,000 pupils attend these 9,454 high schools whose enrollment is fewer than 100 each. Regardless of the efficiency or the inefficiency of these schools the fact remains that at least a half million of our future citizens are depending almost entirely upon them for whatever secondary education they receive. Surely the number of pupils whose secondary education is determined by these schools is large enough to warrant careful study of the conditions that exist in them, the problems that affect their efficiency, and the possible solutions to these problems.

DEFINITION OF THE SMALL HIGH SCHOOL FOR PURPOSES OF THIS STUDY

Reference has already been made and in the course of this study will frequently be made to the small high school. For the purpose of this particular study a small high school may be defined as one employing four or fewer teachers and enrolling 75 or fewer pupils.

AMOUNT OF ATTENTION GIVEN NEEDS OF SMALL HIGH SCHOOLS TO DATE

In the last twenty years the field of school administration has developed very greatly. Practically all important schools of education now offer courses which are designed to prepare stu-

[4] *Statistics of Public High Schools, 1921–22.* Bulletin 1924, No. 7.

dents for administrative positions in school systems. Within recent years, courses for the preparation of high school principals have been introduced. To date, practically all of the courses offered for the training of high school principals have had comparatively large high schools in mind. Quite naturally these courses have dealt with the problems of high school administration from the viewpoint of the principal who expects to take charge of a school enrolling from 300 to 3,000 pupils. Examination of the courses offered in most of our schools of education indicates that very little has been done to provide special preparation for those who will have charge of the multitude of small high schools. Apparently it generally has been assumed that the problems of the large high school are common to the small high school and vice versa.

A similar situation exists so far as education publications dealing with small high schools are concerned. A careful bibliographical survey of current educational books and magazines brought to light very little pertinent material. Inquiries sent to more than a score of prominent publishers of educational books and magazines produced only meager results. On the whole, relatively little attention has been directed to this part of our educational system.

It is true that some contributions have been made. The Departments of Education in a number of states have for several years recognized that these schools constituted their most difficult problem and have attempted to be of assistance to them. Indiana, Pennsylvania, Connecticut, New York, Maine, and Michigan are among the states which should be mentioned in this connection. Several Bureau of Education bulletins have dealt with the village school and additional studies, under the auspices of the Bureau, are under way at this time. By assisting in the Indiana Survey and in certain other studies the General Education Board has shown its interest. Courses dealing with problems of the small high school are being introduced into schools of education. All of these indications taken together furnish at least some evidence that the problem is attracting attention.

CHAPTER I

WHAT ARE THE PROBLEMS OF THE SMALL HIGH SCHOOL?

What are the problems of the small high school? Are they peculiar to these schools or are they exactly the same as those found in large high schools? The few writers who have dealt with this subject have pointed out a large number of difficulties which, they contend, greatly handicap the small school and lessen its efficiency. Examination of the literature in this field, the bulletins of state departments of education, the discussions of state and national educational meetings, surveys involving these schools, and other available information, reveals a large number of problems which, it is asserted, are generally to be found in schools of the size under discussion.

Following are the problems most frequently mentioned in connection with these schools.

PROBLEMS ASSUMED TO EXIST IN SMALL HIGH SCHOOLS

With reference to teachers, it is charged that a large majority of them have had little or no previous experience, that their training has been woefully inadequate, their tenure extremely brief, their salaries insufficient, their professional spirit low—in short, that in practically every important qualification they are far below the standards reached by the staffs of the larger urban school.

In connection with administration and supervision it is claimed that these schools are poorly organized and administered, that the teaching schedules are ill arranged, the records incomplete and inaccurate, that the school year is relatively short, the attendance irregular, that the supervision is either valueless or non-existent, the inspection by authorized agents superficial—in short, that the administration and supervision of these schools are of such character as to contribute very little to the ease and efficiency of instruction in them.

With reference to finances it is maintained that the cost per pupil is exorbitant, that the districts supporting these schools are, in many cases, overburdened with debt and taxes, that the revenue which is actually available is not used efficiently, and that, in a great number of cases, really adequate financial support of these schools is impossible under our present form of organization.

It is charged that the physical plants, in the majority of cases, are unsafe, unsightly, unsanitary, and educationally unserviceable, that they are poorly ventilated, ill-lighted, that there is almost no provision for health education or recreation, that the libraries and laboratories are poorly equipped, and that compared with a well-planned, properly equipped school plant most of them are mere educational makeshifts.

Critics claim that the curricula of these schools are extremely limited, traditional, poorly arranged and ill-balanced, that so much stress is placed upon preparation for college other vital objectives are neglected, that they offer little vocational work, make little or no provision for individual differences in either ability or interests, and by too much imitation of the large urban high schools have almost utterly failed to meet the needs of their own communities.

It is generally assumed that the instruction is inferior in quality, that the teaching load is excessive both in number of preparations required and in number of classes taught, that the limitations of the teaching staff preclude the degree of specialization essential to effective teaching, that the limited library and laboratory facilities add to the difficulties of instruction, that there is almost total absence of helpful supervision, and that these deficiencies, taken together, lower the quality of the work to such an extent as to make poor teaching almost inevitable.

As a direct corollary, it is contended that the results of instruction are considerably below those attained in the larger urban schools, that the amount of retardation is greater, the mortality noticeably higher, the standards for passing much lower; that because of poor teaching, with its resultant lack of interest on the part of pupils, the holding power is low; and finally, that even those graduates who continue their education in higher institutions experience serious difficulty in carrying advanced work because the preliminary work has been poorly done.

With reference to extra-curricular activities it is claimed that, partly because of the limited numbers, much of the work is of little value, that it is generally purposeless, rarely educative, that athletics is over-emphasized, that the assemblies are dull, routine, and meaningless, that the lack of well-trained, experienced teachers prevents the proper direction of these activities, that student funds are frequently mishandled, and that, on the whole, student activities contribute very little to the larger aims of education.

All these complaints and criticisms constitute a most severe indictment of the small high school. In fairness it must be said that these criticisms have been aimed at the general situation rather than at the principals, teachers, and pupils of these schools. Those who have criticized the situation most severely have been quick to admit the difficulties to be encountered in attempting to solve the problems to which their criticisms have called attention.

Are the foregoing criticisms just? Are these assumptions valid? Are they based upon conditions which actually exist in many of these schools? Are these schools as generally faulty and inefficient as the criticisms imply? These are pertinent questions. If they are answered affirmatively the situation is nothing short of alarming and demands serious attention from the best minds in the field of American secondary education. Important and pressing as these questions are, the careful student must admit that at present they can not be answered accurately. Are these numerous adverse criticisms the result of haphazard and limited observation? Do they come from interested but uninformed speculations, or are they the product of careful, systematic study and investigation? Upon what evidence are these criticisms based?

It is unfortunately true that these schools have received careful, painstaking study at the hands of very few and that as a result accurate information relative to them is exceedingly limited. The criticisms aimed at them may or may not be valid. In many cases the reliable evidence necessary to confirm or disprove the charges is wholly lacking. With reference to the efficiency of these schools there has been a wealth of opinion and a dearth of established facts. If these schools are to render the maximum service to their half million pupils it is essential

that assumptions regarding their efficiency be replaced with accurate information. Careful distinction must constantly be made between prevailing opinion and knowledge which has been verified. This knowledge is most likely to result from careful, systematic study. It obviously should be derived objectively wherever possible so that there may be verification and comparison of the findings.

PURPOSE AND PLACE OF THIS STUDY

It is the purpose of this particular study to add to the sum of knowledge regarding the small high school. There have been only a few studies in this field. Most of them have been extensive in character rather than intensive. While the value of the extensive study utilizing the records and reports of many schools is admitted, it is the contention of the writer that these extensive studies must be supplemented by studies which are intensive in their character and which aim at getting many facts relative to a few high schools rather than a few facts about many.

SCHOOLS INCLUDED AND METHOD OF SELECTION

Five small schools are involved in this study. In selecting these schools three lines of procedure were considered. The selection of typical small high schools was first contemplated. In theory this seemed the most desirable plan. However, it was not feasible because no one seems competent to say exactly what constitutes a typical school, and it would be only through a long, arduous process that schools could be selected with any degree of certainty that they were really typical. The second plan was to select schools which were rather generally conceded to be very unsatisfactory. This plan was discarded on the grounds that being negative rather than positive it would not be as valuable educationally as it might be. The third plan was to select schools which were generally conceded to be better than were the majority of schools in their class. It was this plan which was finally followed. It is patent that here again the lack of recognized and accepted standards would prevent any certainty that the schools finally chosen would really be better than the average. It should be noted that no such claim is advanced regarding these five schools. All that can be said is that in making arrangements

in connection with the study the desire to find schools that were better than the average was constantly emphasized. In conferences dealing with this problem the members of the state department of education and the county superintendents were requested to suggest only those schools which they could recommend and there is every reason to believe that they made an honest effort to comply with the request.

All arrangements for the study were made by the writer in person. Through the coöperation of the Pennsylvania State Department of Education and certain county superintendents friendly relations were established with the principals of the schools in question. Every precaution was taken to make sure that once the investigation was begun it might be carried on free from interference either from within or from without the school. To that end permission to carry on the study was secured from the state department and the county superintendents concerned. The project was talked over in detail with the principals of the schools and in every instance their coöperation and support were secured. Only one restriction was imposed by the state department, namely, that under no condition were the names of the persons within the schools or the names of the schools themselves to be disclosed. It was felt that to permit these to become public would add little or nothing to the value of the study. This condition was insisted upon by the state department and was accepted in good faith. It accounts for the necessity of omitting names and such other data as would enable the general public to identify the schools or those individuals working in them.

Since the remainder of this study is devoted to a detailed discussion of the schools and their communities the following brief descriptive statement regarding them will suffice at this time.

Schools Studied	Type	Number of Teachers	Number of Pupils	Years' Work Offered
School A[1]	Borough	3	54	4
School B	Borough	3	41	4
School C	Township	2	32	4
School D	Borough	2	26	3
School E	Borough	1	12	2

[1] Throughout this study these five schools, their respective districts, and their communities will be designated by the symbols A, B, C, D, and E. The identity of these symbols will be preserved throughout the study. That is, A will always refer to School A or its district or its community; B will always refer to School B, its district or its community, etc.

METHOD OF CARRYING OUT THE STUDY

Preliminary arrangements having been completed, the next step was to plan in detail the most desirable method of carrying on the study. Since the chief aim was to get a clear, accurate picture of these schools and their communities, it was felt that the study must be at first hand, if the most valuable results were to be forthcoming. With this in mind, the following steps were taken during the course of the investigation:

1. A large number of objective measuring devices were applied within the schools themselves. These devices included fourteen tests or scales for measuring intelligence, reading comprehension, spelling, and achievement in subjects taught. In all cases where objective scales, score cards, or tests were available, they were used in preference to the opinion or judgment of the observer.
2. Contacts were established with pupils, teachers, and principals. Some classroom teaching was observed in each school. Courses of study, textbooks, and supplementary materials were noted. The library and laboratory facilities were inspected. Assemblies were visited and other extra-curricular activities noted. It is believed that sufficient time was spent in each school to enable the writer to get a rather intimate knowledge of the general atmosphere, the spirit of both the pupils and the teachers.
3. Records and reports containing information relative to the schools or the community were used wherever they were available. These included materials within the schools, the county superintendent's office, the state department of education, and the census bureau.
4. Although the chief emphasis of the study was put on the schools and their work rather than on their communities, it was felt that in order to know the schools well, to know their aims, ideals, strengths, and weaknesses, it was necessary to know considerable regarding the communities which the schools were attempting to serve. For that reason the communities forming the environment of the schools were carefully observed throughout the course of the investigation.

Practically all of the material embodied in the study was secured in person by the writer who went to each community and remained there during the time required to gather the data.

SUMMARY

Those students of secondary education who have given attention to this subject contend that there are a large number of serious problems which are almost invariably found in the small high school. It is charged that many of these problems are peculiar to schools which have a limited enrollment and a small teaching force. Numerous criticisms are leveled at these schools. Are these criticisms valid? Are they based upon systematic observation and careful study or are they the result of haphazard observation and mere unverified opinion?

It is the purpose of this study to add to the sum of knowledge regarding the small high school. Most of the studies in this field have aimed to secure a few facts about a great many schools. This study aims to secure a great many facts about a few schools. While most of the studies in this field have been based largely upon questionnaires and records, this study is almost entirely based upon first-hand investigation.

CHAPTER II

ENVIRONMENT OF THESE SCHOOLS

PHYSICAL ASPECTS OF THESE COMMUNITIES

The schools included in this study are located in four different counties. Although all are found in small towns or villages and so have certain features in common, care was taken to select schools in communities which differed from each other in at least some significant way.

The population has changed little or none from the figures given in the 1920 census. According to that report the populations [1] of the five villages were—

Village	Population
A	773
B	857
C	186
D	1031
E	1167

GENERAL APPEARANCE

Community A[2]

In spite of the fact that its location offers some natural advantages, which, if used, would make it a place of beauty, Community A presents a very unattractive appearance. The yards are unkempt, the houses badly in need of paint, and the fences in need of repair. Very few of the homes are outwardly attractive. To a most casual observer the village appears run down and bedraggled. The general attitude of the residents toward the appearance of the town seems to be one of indifference. Through the extension of the highway system by the state, a splendid concrete road has recently been built through the very heart of the town and this has taken hundreds of people through the

[1] To avoid general identification the figures given vary one per cent or less from those actually given in the Census report.

[2] Throughout this study the word "community" will be used to designate that territory served by the school under consideration.

village each day. However, even this has failed to bring about any noticeable improvement on the part of property owners. Practically all of the other roads are unimproved dirt roads which are hardly usable during winter, spring, or fall. Their condition is such that according to the complaints of the local merchants trade with the farmers of the surrounding rural section is not nearly what it should be. So far as appearance goes, the village is entirely lacking in grace or charm. Its outstanding physical asset is the school building, which was the gift of a former resident. It stands on the highest point of the village and, representing the finest achievement of the community, serves somewhat to relieve the general drab monotony of its surroundings.

Community B

This community represents a decided contrast to Community A in a great many ways. Its houses are substantially constructed, its yards are neat and well kept, and its fences in repair. Situated in a very beautiful section of the state, the village reflects considerable pride in its own appearance and in this it is justified for it is an unusually clean and attractive small town.

Community C

Community C is very much nearer the typical small village of the farming community. With its population of fewer than two hundred it consists mainly of a post office, two general stores, a garage, two churches, the school building, and a group of residences. While its appearance is not attractive in any sense of the word, it is not as unprepossessing as Community A.

Community D

This is a suburban community which is beginning to show the effects of its nearness to a large city. It is now in a sort of halfway stage between a country village and a neat residence suburb. Many of its homes are new and the general condition of its lawns and streets indicates a rather general pride on the part of its inhabitants. Its outstanding physical asset is its unusually beautiful church, which is the gift of a local man of wealth. This community easily ranks next to Community B in general attractiveness.

Community E

If the five communities were ranged in the matter of general appearance there seems to be no reasonable doubt that Community E would be rated considerably below any of the others. If the majority of its residents possess either a sense of beauty or a feeling of pride in the appearance of the town the observer can find no evidence of it. The large number of dilapidated, unpainted houses, the dirty, neglected alleys, the unkempt yards, and the generally mean and squalid appearance of the entire village present the picture of a community that, in outside appearance at least, is exceedingly distasteful and ugly.

ECONOMIC CONDITIONS

Community A

In addition to the revenue derived from farming the people of Community A depend for economic support upon the local shoe factories of which there are seven. Working conditions in these factories are not very favorable at best, for they seem to offer little more than the chance to make a mere living. Their average wage scale for men is slightly more than three dollars per day. The natural result of this is that in many cases more than one member of a family becomes a wage earner. A majority of the workers of the town are either unskilled or semi-skilled laborers. At the time of the study more than half of the shoe factories were closed down because of business depression, and economically the town was at a standstill. The more optimistic expected a revival of business within the next twelve months, but that is by no means certain. A few men are employed by the local railway system, but on the whole the economic opportunities which are open to the young people are extremely limited. This partly accounts for the constant loss of the bright and ambitious youth who are most needed if the town is to make real progress. It is estimated that fifteen per cent of the total population consists of retired farmers and it is frequently charged that this group is consistently opposed to community improvement or the active encouragement of more local industries.

Community B

Fully forty per cent of the population of this village consists of the families of retired farmers. Since it is located in

the heart of a very prosperous agricultural section, most of these retired farmers are men who are in very comfortable circumstances. They have very well kept homes. They are substantial citizens who seem to take genuine pride in the appearance of the town and since their number is comparatively large their economic influence makes itself felt in the community. There are no factories within the village and the chief source of revenue for those in business is the trade attracted from farmers of the surrounding districts. The village itself offers but few economic advantages to its young folks.

Community C

This is a strictly agricultural community. The few who are not engaged in farming work as laborers on the state highways. Since there are no factories and the town of 186 inhabitants is not a recognized trade center, the only economic opportunity open in general to young people of this locality is that found in farming.

Community D

Practically all of the workers who live in this community are professional men, office workers, or skilled tradesmen, who are employed in a near-by large city. The only exceptions to this are those who are engaged in construction work which is flourishing just now and the few who manage the small stores and shops. More out-of-school work is done by high school pupils in this locality than in any other of these communities. The near-by city affords a much wider range of economic opportunities than is offered to the young people of the other schools.

Community E

Community E is almost entirely devoid of economic opportunity for its youth. The local car shops employ a limited number of men, but practically all who desire employment are compelled to go to the steel plants and factories of nearby towns in order to secure it.

CERTAIN SOCIOLOGICAL ASPECTS OF THESE COMMUNITIES

This phase of the study will be limited to a discussion of the nationalities represented, the schooling received by parents of the pupils, and outstanding organizations in the school areas.

Nationalities Represented

Investigation reveals the fact that practically all of the residents of these communities are not only American by birth, but that, in addition, a large majority were born within the state. Table II refers to the parents of high school pupils.

TABLE II

BIRTHPLACE OF PARENTS OF HIGH SCHOOL PUPILS

	Percentage of Fathers Who Are Native Born	Percentage of Mothers Who Are Native Born
School A	100	98
School B	100	100
School C	97	97
School D	83	79
School E	100	100

Regardless of the other difficulties which may beset these schools, it is plain that their work is not complicated by the presence of the foreign-born pupil or the pupil of foreign parentage. Neither are they compelled to face problems created by races or languages other than English, for all of the residents of these five communities are members of the white race, and English is the language spoken in more than ninety-five per cent of the homes.

Education of Parents

Figures purporting to show the amount of schooling received by adults are likely to be erroneous. Records are inadequate and oral statements are unreliable. If the statements of boys and girls relative to the schooling of their parents are to be accepted, the median amount of schooling received by the parents of the pupils of these five schools is eight years, the range being from two years to fourteen. There are reasons to believe that these statements are too generous rather than too conservative, but it is worth noting that according to these statements of the pupils themselves, not one of their parents had finished more than two years of a college course and only three parents had taken any college work whatever.

Organizations Found in These Communities

Among the organizations common to all of these communities is the church. The village which is the center of Community

A is the seat of four churches. None of these is very strong and according to the estimates of certain of the pastors less than twenty-five per cent of the people of church age are united with any church. Community B also has four churches, while Community C has two. Communities D and E each support one single church. As nearly as can be ascertained by a brief investigation, the services in all of these churches are of the traditional variety, while the organizations within the churches take the form of the typical Christian Endeavor or the Ladies' Aid. The only church which deserves special mention is the one located in Community E. As has been already stated, this is a gift made to the village by a local man of wealth and has an unusually beautiful and well-planned building. In none of these communities do the churches seem to be exerting unusual influence. On the other hand, most of the pastors complain of poor support and lack of interest on the part of the townspeople.

Aside from the churches and lodges no particular organization is common to these communities. In Community A the Grange has a membership of slightly more than 175 and is trying to meet some of the social needs of its members as well as creating a better feeling between the farmers and residents of the village. There is a post of the American Legion here, but it is not particularly active. Community B is the only one possessing a Parent-Teachers Association. Unfortunately it seems to be inactive most of the time. A Home and School League has been organized in Community C, but to date there is no evidence that it has furthered education or assisted the school in any way.

The most active organization in Community E seems to be the Klan, which was openly carrying on a campaign to increase membership at the time of the investigation. All of these communities are now entered by splendid state highways. This fact seems to have a direct bearing on their social life. Many of the residents own automobiles, and many of those who wish either social life or entertainment seek it in the larger centers of population which, due to modern conveniences, are only a few minutes or hours away in point of time. Especially noticeable is the absence of organization which would provide wholesome social life for the youth of these villages. This neglect on the part of the community extends down even to the younger

children. Not one of these villages has made a sincere effort to provide playground space and recreational facilities for its boys and girls of school age.

In every community there is complaint that the young people are unwilling to remain. When their economic opportunities and their chances for wholesome recreation and social life are considered, some of the reasons why they wish to locate elsewhere become apparent. As no picture shows are found in any of these communities, those of near-by towns are patronized. However, modern conveniences such as electric light, plumbing, etc., are becoming more and more common.

According to the carefully checked statements of the pupils the number of radios, telephones, and automobiles in their homes are as given in Table III.

TABLE III

PERCENTAGE OF PUPILS WHO COME FROM HOMES POSSESSING RADIOS, TELEPHONES, OR AUTOMOBILES

	Radios	Telephones	Automobiles
School A	8%	15%	49%
School B	15	39	44
School C	13	19	69
School D	35	23	27
School E	8	8	33

Some of those who are interested in church work in these communities complain that the increase in the number of automobiles has caused a falling off in church attendance and that other organizations within the villages have also been weakened by the ease with which the larger centers of population can now be reached; but no figures which would confirm or disprove this could be secured. It is quite possible that the automobile, bringing within comparatively easy reach the recreation and amusements of the city, has tended to lessen the enthusiasm for the social life of the local community.

General Estimate of the Spirit of These Communities

Any estimate of the general spirit of a community which is based largely upon a brief study of its appearance and social life is likely to be not only erroneous but very unfair as well. For that reason, sweeping statements condemning or adversely

criticizing the attitude and spirit of the people who live in these villages can well be omitted from this study. In this connection, however, it might be profitable to recall the attitude of those who teach in their schools. Every member of the teaching staff in each of these high schools expressed the wish to secure a position elsewhere next year. A number of reasons were given for wanting to make a change, but, with the exception of the teachers in Community B, every one emphasized the unattractiveness of the community and the limited advantages as important causes for their lack of enthusiasm for their present positions. In a number of cases there seemed no attempt to conceal this feeling of dissatisfaction and the results may easily be conjectured. Regardless of the cause or justification of this attitude, its bad effect on the work of the teacher and in turn on the efficiency of the schools can hardly be doubted. What returns can a community reasonably expect on the money it invests in education if the environment is such that those who teach in the schools are discontented and even disgruntled? Just what is the duty of the community with respect to this problem? On the other hand, to what extent are teachers responsible for the conditions of which they complain? Assuming that competent local leadership is lacking, is it not possible that this need must be met, in part at least, by those who are employed in the school? How else shall a community which seems rather hopelessly bogged be enabled to help itself? These questions are not within the province of this study, but are surely vital enough to provoke serious thought.

SUMMARY

Each of these schools is located in a village. The range in population is approximately from seven hundred to eleven hundred. They vary a great deal in general appearance, economic conditions and social life. Practically all of the pupils in the schools are of native parentage. All are of the white race. No racial or foreign language problems are found in either the schools or their communities. According to the statements of the pupils the median amount of schooling received by parents is eight years. There is a dearth of social life in these villages. Automobiles are common and, according to the statement of local pastors, attendance at the local churches is very poor.

Good roads, automobiles, and electric lines have made the larger towns easily accessible. None of these villages has made a serious attempt to provide wholesome recreation for its young people. The evidence indicates a need for progressive leadership which is not being met.

CHAPTER III

FINANCES IN THESE SCHOOLS

In discussing the problems of their schools and describing the conditions under which the work was being carried on, the complaint made most frequently by both the teachers and the principals was in connection with the problem of finance. The statement "We haven't been able to raise the money required to do this as we want to do it" was repeated in substance, if not in exact words, by all of the principals in these five high schools.

Just what is the financial condition of each of these districts? Are these schools receiving the financial support they can reasonably expect from their districts? What is the ability of each district to support education? Is the money raised for school purposes being wisely spent by officers charged with that responsibility? Each of these questions must be answered in order to reach a knowledge of the finances of these schools.

SYSTEM OF ACCOUNTING USED

Through the work of the Pennsylvania State Department of Education, all of these districts have adopted a uniform system of accounting. The secretary of the Board of Education of each district is required to file a detailed report of all receipts and expenditures. This report must be filed at the capital by a specified date and failure to meet this regulation stops the payment of state appropriations. Precaution is taken to insure the accuracy of the reports, each one for fourth class districts being checked by the local county superintendent.

Expenditures are recorded under the following general classifications, each of which is subdivided:

Payments

A. General Control
B. Expenses of Instruction

C. Expenses of Auxiliary Agencies
D. Expenses of Operation of School Plant
E. Expenses of Maintenance of School Plant
F. Expenses of Fixed Charges
G. Debt Service
H. Capital Outlay

FINANCIAL RESOURCES

What are the financial resources upon which these schools can draw? In order to answer this question the amount of taxable property, the amount of state aid received, and the normal amount collected from tuition must all be taken into account. The following statement shows the assessed valuation, the per cent of real valuation which the assessed valuation represents, and finally, the real valuation of the real estate and personal property in each of the five districts.

District	Assessed Valuation*	Per Cent of Real Valuation	Real Valuation
District A	$ 261,150.00	80%	$ 326,437.50
District B	439,800.00	60	733,000.00
District C	284,460.00	60	474,100.00
District D	1,331,946.00	60	2,219,910.00
District E	220,360.00	75	293,812.33

* These figures are based upon the report of the Secretary of each district for the school year 1924–1925. The year ended July 6, 1925.

The above figures can have little meaning unless the educational load to be carried by each valuation is taken into consideration. Three of these districts have a number of tuition pupils in their high schools. For these pupils the districts receive tuition. Omitting these tuition pupils the amount of wealth behind each local pupil actually in high school is as indicated below.

District	Real Valuation	Local High School Pupils	Wealth Behind Each High School Pupil
District A	$ 326,437.50	29	$11,256.47
District B	733,000.00	32	22,906.25
District C	474,100.00	21	22,576.19
District D	2,219,910.00	25	88,796.40
District E	293,812.33	12	24,484.36

It should be noted that the amount of local wealth behind

each local high school pupil ranges from $11,256.47 in District A to $88,796.40 in District D. A levy of ten mills in District D will produce more than seven times as much revenue per high school pupil as will be produced by a similar levy in District A. Of course this does not tell all that should be known about the educational load because the proportion of elementary pupils to high school pupils varies among the schools. Considering the number of elementary pupils alone, the amount of wealth behind each is as follows.

District	Real Valuation	Number of Local Elementary Pupils	Wealth Behind Each Elementary Pupil
District A	$ 326,437.50	123	$2,653.96
District B	733,000.00	99	7,404.04
District C	474,100.00	87	5,449.42
District D	2,219,910.00	238	9,327.31
District E	293,812.33	203	1,447.35

Even the above method of comparing educational responsibility is likely to lead to a large error due to the assumption that the cost of elementary schooling per year is equal to the cost of a year of secondary schooling. Since the figures for Pennsylvania are not available, the most satisfactory procedure is to take the figures given out by the United States Bureau of Education [1] which states that the total per pupil cost per day is 2.4 times as much for secondary education as for elementary education. Making this correction the amount of wealth behind what is really the equivalent of each high school pupil in each of these districts is as indicated below.

District	Real Valuation	Local High School Pupils Plus $\frac{1.0}{2.4}$ of the Number of Elementary Pupils	Actual Wealth Behind Each
District A	$ 326,437.50	80	$ 4,080.47
District B	733,000.00	73	10,041.09
District C	474,100.00	57	8,317.54
District D	2,219,910.00	124	17,902.45
District E	293,812.33	101	2,009.03

BONDED INDEBTEDNESS

In determining the financial standing of these districts note must be made of the financial obligation already incurred by

[1] U. S. Bureau of Education Bulletin 1920, No. 19.

each for educational purposes. The amount of bonded indebtedness of each district is as follows.

District	Real Valuation	Bonded Indebtedness	Per Cent of True Valuation
District A	$ 326,437.50	None	.000
District B	733,000.00	$28,900.00	.0394
District C	474,100.00	None	.000
District D	2,219,910.00	28,000.00	.0126
District E	293,812.33	2,000.00	.0068

The most casual comparison on the foregoing items indicates that these five districts vary considerably in their ability to support education. District D easily leads in financial resources and is increasing in wealth much more rapidly than are any of the others. District E lags behind all the others and is showing very little increase in value of property. While the basis for comparison may not be absolutely satisfactory, it does bring out the fact that there are very serious financial inequalities existing among these five schools. These inequalities in valuation constitute a serious problem. The range in true valuation back of a teacher among districts of the State of Pennsylvania is from $11,000.00 to $1,875,000.00.[2]

STATE APPROPRIATIONS

By means of state appropriation the state is attempting to equalize, in a measure at least, the educational opportunities which may be offered. Of the total amount of money spent in the state in 1924 for educational purposes 17.1 per cent was appropriated by the state. Of course, the fourth class districts receive a proportionately large share of this state aid because of their rather generally low valuation. The amount of state appropriation received during the current school year by each of these districts and the total amount of collectible tax are as follows:

District	State Appropriations 1924–1925	Total Collectible Tax
District A	$4,033.00	$ 8,248.73
District B	2,955.00	6,885.34
District C	2,853.64	4,605.57
District D	3,562.89	15,789.15
District E	3,720.61	6,370.55

[2] *Educational Surveys*, page 130, Pennsylvania State Department of Education.

TUITION FROM NON-RESIDENT PUPILS

Another source of revenue for three of these districts is the tuition paid in by non-resident pupils. The amount is indicated below.

District	Tuition Received 1924–1925
District A	$2,055.00
District B	694.14
District C	693.00

DEGREE OF SUPPORT GIVEN EDUCATION IN EACH DISTRICT

Attention has been called to the variations among these districts in the ability to support schools. Just how do they compare in willingness to provide for education within the limits of their ability to pay? The tax levy for each district for the current year and the amount raised by the levy are as indicated below.

District	Number of Mills Levied for School Purposes 1924–1925	Amount of Collectible Tax
District A	22	$ 8,248.73
District B	15	6,885.34
District C	13	4,605.57
District D	10	15,789.15
District E	20	6,370.55

District A stands highest in point of proportionate expenditure for its schools while District E is a close second.

TOTAL FUNDS AVAILABLE FOR EDUCATION—1924-1925

The total available educational funds for the current year for each district are as follows.

District	Total Receipts 1924–1925
District A	$17,012.16
District B	47,338.37 *
District C	9,143.07
District D	21,348.67
District E	10,310.17

* A bond sale of $28,910.84 besides a loan of $7,600.00 has served to increase the receipts of District B to $36,510.84 above the normal amount. The money so raised was used for building, alteration, and repairs.

DISTRIBUTION OF EDUCATIONAL EXPENDITURES

How are these districts using the funds collected for educational purposes? Analysis of the expenditures of these five districts for the year 1924-1925 gives the distribution indicated in Table IV.

TABLE IV

DISTRIBUTION OF TOTAL EXPENDITURES DURING 1924–1925

	District A	District B	District C	District D	District E
General Control	$417.08	$531.05	$256.06	$367.44	$501.63
Per Cent of Total	2.5	1.1	2.91	1.7	5.2
Expenses of Instruction	$10,095.48	$7,801.37	$5,268.23	$13,974.19	$7,004.39
Per Cent of Total	62.6	16.6	59.84	65.5	72.3
Expenses of Aux. Agencies	None	$7.31	$1,425.00	None	None
Per Cent of Total			16.2		
Expenses of Operating Plant	$1,216.85	$1,223.34	$1,013.40	$1,926.15	$820.31
Per Cent of Total	7.5	2.6	11.51	9.0	8.5
Expenses of Maintenance of Plant	$524.84	$102.99	$216.78	$1,145.43	$441.58
Per Cent of Total	3.3	.2	2.46	5.4	4.6
Expenses of Fixed Charges	$409.90	$395.65	0.0	$1,209.28	$179.62
Per Cent of Total	2.6	.9	0.0	5.7	1.8
Debt Service	$3,226.37	$16,041.54	$567.50	$2,325.00	$290.00
Per Cent of Total	20.0	34.2	6.45	10.9	3.0
Capital Outlay	$247.60	$20,803.72	$57.20	$395.00	$447.25
Per Cent of Total	1.5	44.4	.63	1.8	4.6
Total Expenditures	$16,138.12	$46,906.97	$8,804.17	$21,342.74	$9,684.78

The variation in the cost of General Control ranges from 1.1% to 5.2%. District E pays $501.63 under that item and proportionately is much the highest. Of this $501.63 the sum of $318.54 is paid for collection of taxes. Slightly more than fifty per cent of all of the money paid for expenses of General Control goes for the collection of taxes. A real saving could be effected by replacing the present system with the county unit type of organization.[3]

The results of further analysis of school expenditures is given in Table V. This table distributes the expenditures which are included under the head of Current Expenses.

[3] *Educational Surveys*, page 131, Pennsylvania State Department of Education.

TABLE V

DISTRIBUTION OF CURRENT EXPENSES DURING 1924–1925

	District A	District B	District C	District D	District E
General Control	$417.08	$531.05	$256.06	$367.44	$501.63
Per Cent of Current Expense	3.3	5.3	3.2	1.98	5.61
Expenses of Instruction	$10,095.48	$7,801.37	$5,268.23	$13,974.19	$7,004.39
Per Cent of Current Expense	79.6	77.5	64.4	75.03	78.28
Expenses of Auxiliary Agencies	None	$7.31	$1,425.00	None	None
Per Cent of Current Expense		.1	17.4	0.0	0.0
Expenses of Operation of School Plant	$1,216.85	$1,223.34	$1,013.40	$1,926.15	$820.31
Per Cent of Current Expense	9.6	12.2	12.4	10.36	9.16
Expenses of Maintenance of School Plant	$524.84	$102.99	$216.78	$1,145.43	$441.58
Per Cent of Current Expense	4.2	1.0	2.6	6.15	4.93
Expenses of Fixed Charges	$409.90	$395.65	None	$1,209.28	$179.62
Per Cent of Current Expense	3.3	3.9	0.0	6.48	2.02
Total Current Expense	$12,664.15	$10,061.71	$8,179.47	$18,622.49	$8,947.53

Because of the fact that there is no clear division between the expenses of the elementary school and the high school in these five districts, it is not possible to make the comparisons with other high schools that should be made. The proportion of the Current Expenses which goes for instruction is about the same in Districts A, B, D, and E. It is lower in District C because of the higher expenses of Auxiliary Agencies in School C. This is caused by the payment of $1,422.00 for pupil transportation during the current year.

The item Expenses of Auxiliary Agencies is worthy of special attention. It includes expenditures for Libraries (books, repairs and other expenses for library), Promotion of Health (medical, nurse and dental service), Transportation of Pupils, Community Lectures, and some other similar expenses. On the first two items mentioned (Libraries and Promotion of Health) record indicates that these five districts have spent exactly $7.31 during 1924-1925. This expenditure for library purposes is recorded for School B. The other schools made no expenditures under this item.

DISTRIBUTION OF EXPENDITURES FOR INSTRUCTION

The proportion of each school fund actually expended for instruction having been determined, the next step is to compute

the cost of instructing each pupil in each subject offered. In order to facilitate comparisons among the schools and among the subjects, the teaching costs have in all cases been reduced into terms of pupil hours. The results are given in Table VI.

TABLE VI

PER PUPIL COST PER HOUR OF INSTRUCTION IN EACH SUBJECT IN THESE FIVE SCHOOL

	School A	School B	School C	School D	School E
	Dollars	Dollars	Dollars	Dollars	Dollars
ENGLISH					
English 9	.0620	.0496	.0903	.0776	.1614
English 10	.0723	.9937	.0736	.0685	.1614
English 11	.0667	.0562	.1015	.3881	
English 12	.0620	.0562	.1354		
MATHEMATICS					
Algebra	.1018	.0817	.1534	.0952	.1614
Plane Geometry	.1273	.0817	.1263	.2041	.1614
Inter. Algebra	.1175			.4762	
Solid Geometry	.1389	.1984	.1984		
Bus. Arithmetic			.1984		
LATIN					
Latin 1	.0723	.0496	.0738	.0776	
Latin 2	.1085	.1054	.0903	.2328	
Latin 3	.0723	.4219	.0903	1.1643	
Latin 4	.0723	.4219			
FRENCH					
French 1		.1157		.1663	
French 2		.3472		.29107	
SOCIAL SCIENCE					
Civics	.1091	.0478	.1452	.1952	.1614
American History	.1175	.1015	.0992	.4762	
European History	.1273	.0903		.2041	
Econ. Civics	.1091				.1614
Problems of Democracy	.1091	.1160			
NATURAL SCIENCE					
General Science	.0941	.0478		.0932	.1614
Biology		.0903	.0767		.1614
Physics	.0540		.1151		
Chemistry		.0534			

To make comparison easier among subjects and schools the subject costing the most, the subject costing the least, and the median cost of all subjects for each school are shown in Table VII.

TABLE VII

MOST EXPENSIVE SUBJECT, LEAST EXPENSIVE SUBJECT AND MEDIAN COST OF ALL SUBJECTS, PER PUPIL, PER HOUR

	Dollars
SCHOOL A	
Most Expensive Subject—Solid Geometry	.1399
Median Cost of All Subjects	.0832
Least Expensive Subject—Physics	.0540
SCHOOL B	
Most Expensive Subjects—Latin 3 and Latin 4	.4219
Median Cost of All Subjects	.0877
Least Expensive Subjects—General Science and Civics	.0478
SCHOOL C	
Most Expensive Subject—Solid Geometry	.1984
Median Cost of All Subjects	.0969
Least Expensive Subject—Civics	.0452
SCHOOL D	
Most Expensive Subject—Latin 3	1.1643
Median Cost of All Subjects	.2041
Least Expensive Subject—English 2	.0685
SCHOOL E	

All classes in School E are exactly the same size, meet with equal frequency and are taught by the same teacher, with the result that all pupil-hour costs are identical. The per-pupil cost for each hour is 16.14 cents.

Since the most important single factor in determining instructional costs is the size of the classes taught, one would naturally expect the instructional costs in these schools to be quite high. This high cost seems almost invariably to accompany the small high school. Studies by Monroe,[4] Davis and Kimball,[5] Church,[6] Burris,[7] and Evans,[8] have clearly shown that to be the case in those states where the problem has been investigated. While it does not seem possible to avoid this high cost in small schools, the problem can be partly solved by offering certain subjects in

[4] Monroe, *The Cost of Instruction in Kansas City Schools.*
[5] Davis and Kimball, *A Study of the Cost of Secondary Education in Connecticut.*
[6] Church, "Factors Determining High School Teaching Costs," *The High School Teacher*, February, 1926.
[7] Burris, *Cost of Instruction in Indiana High Schools.*
[8] Evans, "High School Costs in Texas in 1924," *The School Review*, February, 1926.

alternate years, by eliminating certain subjects, and by reducing the number of small sections wherever that can be done without seriously handicapping the pupils.

SUMMARY

Through the influence of the Pennsylvania State Department of Education a uniform system of accounting is used in these schools. State aid can be withheld if proper reports are not filed promptly.

There is considerable variation in the ability of these districts to support education. State aid assists these schools in dealing with financial problems but does not compensate for the inequalities that exist. These school districts vary a great deal in their willingness to assume financial burdens for educational purposes. The indications are that the substitution of the county unit type of organization for the district system now used would result in financial savings for these schools.

The instructional costs tend to increase as the schools decrease in size. Within limits the smaller the school the greater the likelihood of high instructional costs. Although somewhat influenced by the teacher's salary, the most important single factor is the number of pupils under instruction in each class.

Instructional costs tend to increase during the four years, because of the decrease in class size. This generally occurs even in a required subject such as English. It is especially noticeable in mathematics and foreign language.

The combination of small classes with the alternation of subjects has been effectively used to reduce instructional costs in some cases.

The addition of a second foreign language has been extremely expensive for two of these schools. Offering a third or fourth year of Latin for one, two, or three pupils has materially increased the expenditure for instruction.

The size of these schools will in many cases prevent formation of classes which can be efficiently instructed. Of the seventy-seven classes in these five schools more than half contain ten or fewer pupils. Some measures which would greatly relieve this condition have been neglected. For example, the elimination of Latin 3 taken by a single pupil in School D would result in a real saving. Other similar changes could well be made.

CHAPTER IV

PHYSICAL PLANTS AND INSTRUCTIONAL EQUIPMENT OF THESE SCHOOLS

With the phenomenal growth of secondary schools since 1890 there has been a corresponding increase in the amount of attention devoted to the problem of properly housing and equipping the high school. As a natural result school architecture has made considerable progress during the last quarter of a century and has done much to further the aims of those who are engaged in the work of education. With this development standards in high school buildings have been evolved and it is now possible to check a given plant in the light of these accepted standards.

How do the buildings used by the five high schools of this study rank in comparison with the standard which is acceptable for a high school? Do they meet the standard or do they fall short, and if so, how far? To answer this question with as high a degree of objectivity as possible, all of these school buildings were scored by the Strayer-Engelhardt Score Card for High School Buildings. This score card is made up of seven major sections, each of which has a number of subdivisions. It not only lists all of the features necessary to a modern high school plant but, in addition, assigns a rating value to each feature. The basis for scoring is 1000 points which are distributed as follows.

I. Site ..... 100 points
Pertains to Location, Nature and Condition, Size and Form.

II. Building ..... 155 points
Pertains to Placement, Gross Structure and Internal Structure.

III. Service Systems ..... 270 points
Pertains to Ventilation, Fire Protection, Cleaning, Artificial Lighting, Water Supply, Toilets, Lockers, Storage, etc.

IV. Classrooms or Recitation Rooms ..... 145 points
Pertains to Location and Connection, Construction and Finish, Illumination and Equipment.

V. Special Classrooms ..... 140 points
Pertains to Science Laboratories, Household Arts Laboratories, Industrial Arts Shops, Commercial Classrooms, Music Rooms, Drawing and Art Rooms.

VI. General Service Rooms ..... 140 points
Pertains to Auditorium, Cafeteria, Library, Gymnasium Facilities, Study Halls, etc.

VII. Administration Rooms ..... 50 points
Pertains to Administrative Offices, Teachers' Rooms, Health Service Rooms, Student Activity Rooms, etc.

Total ..... 1000 points

TABLE VIII

SCORES FOR BUILDINGS USED BY HIGH SCHOOLS OF THIS STUDY *

Sub-Item	School A	School B	School C	School D	School E
	[Maximum Possible Score—1000] Total Score Allotted				
	572	503	320	445	276
I—SITE					
Maximum Possible Score—100					
Score Allotted	95	88	84	80	63
II—BUILDING					
Maximum Possible Score—155					
Score Allotted	132	116	89	103	75
III—SERVICE SYSTEMS					
Maximum Possible Score—270					
Score Allotted	164	152	56	144	54
IV—CLASSROOMS OR RECITATION ROOMS					
Maximum Possible Score—145					
Score Allotted	121	112	88	90	82
V—SPECIAL CLASSROOMS					
Maximum Possible Score—140					
Score Allotted	12	11	0	0	0
VI—GENERAL SERVICE ROOMS					
Maximum Possible Score—140					
Score Allotted	43	21	0	25	0

* According to accepted usage a score of 600 to 700 points has indicated the need of considerable alteration. Buildings scoring 500 to 600 points can be made reasonably habitable by extensive repairs or alterations. Where the score is less than 500 points, abandonment of the plant as a high school building is recommended.

VII—Administration Rooms					
Maximum Possible Score— 50					
Score Allotted	5	3	3	3	2
Total Score Allotted	572	503	320	445	276

It is not difficult to account for the low score made by these buildings. With the exception of Building A all were planned and erected so long ago that their date of original construction very nearly precludes their being satisfactory for a modern high school. A high school building which might have been entirely satisfactory in the year 1870 or 1885 is not at all likely to prove adequate in the year 1925 unless it has been rather generally remodeled at some time during the period. This would be true even if the building did not deteriorate with the passing of time. Educational progress during the last twenty-five years has been so marked that high school plants erected at the beginning of that period or before are almost certain to be obsolete and inadequate now. Special rooms such as auditoriums, libraries, gymnasiums, study halls, and lunch rooms are comparatively new features in a school building, but their worth is so generally admitted that they can very properly be required as part of a well-planned high school plant. The scores of these five buildings under consideration are also lowered considerably by the rapid changes that have come about in methods of providing facilities for lighting, heating, and cleaning school plants. Fire protection is now more stringently demanded than in past years and numerous other changes might be mentioned. Finally, there is the matter of condition or upkeep. Certain of these buildings are run down very nearly to the point of dilapidation. This lowers their already low score. All of the above factors operate to a certain extent and, it is believed, fully justify the total scores which have been allotted in each case.

The following explanations regarding each school will supplement the rating indicated on the score card.

School A

This is without question the best of the five plants. Erected in 1913 at a cost of $30,000, it represented rather superior planning for that date. Its site was unusually well chosen and the grounds have been carefully tended and improved. Unfortunately no provision was made for a satisfactory gymnasium

or library. The arrangement for the school lunch is unsatisfactory. The basement ceiling is too low for basketball and there is a great deal of waste space. The building is two stories in height, the four rooms on the first floor being occupied by the grades. The "main room" seats sixty pupils and there is an auditorium with a fair stage and a seating capacity of 250. The classrooms are unusually well arranged, but no real provision has been made in the building for home economics, manual arts, or physical education. The building and grounds are exceedingly well cared for by a janitor who is both faithful and competent.

School B

This building, originally constructed in 1870, was remodeled last year at a cost of $29,000. It is quite similar to Building A except that it lacks an auditorium, its classrooms are not quite so well arranged, and its site is not so fine as the site of School A.

School C

This school building was erected twenty-eight years ago and consists of a two-story building of four rooms. A new heating plant was installed in 1924 at a cost of $518.00. Improperly installed, it has served to weaken the building to such an extent that the second floor gives perceptibly and unquestionably is dangerous. Either it should be repaired or else precautions should be taken to avoid a crowded room. Of course, the former is the safer procedure.

This building can be considered nothing more than a group of four schoolrooms. It lacks all of those features which distinguish a real high school building from a mere collection of classrooms. The part devoted to high school instruction consists of two rooms on the second floor. A cheap and dingy print of Washington and an advertising calendar comprise the wall decorations. A few back numbers of magazines are strewn about on benches and desks. The building is untidy and unsanitary and ugly. The toilets are typical outhouses and the whole plant is a full quarter of a century behind the times.

School D

This building, originally constructed in 1903, was considerably altered in 1917 and now, with its site, is valued at $35,000. Here

again is presented the all too prevalent idea that a high school building consists of a classroom or a number of classrooms and that nothing else is necessary. This building is much more substantial than Building C and Building E, but it lacks much of coming up to an acceptable standard.

School E

This building is a two-story two-room building constructed in 1885. The upper room is used for the high school, the lower for the grade. Although the building has received piecemeal repairs from time to time, the record indicates it has been neither remodeled nor fully repaired since its erection. This is confirmed by its dilapidated, run-down appearance. It is very badly in need of renovation. The health of the pupils is not safeguarded. The only available source of drinking water appears to be a rusty bucket into which the equally rusty cups are dipped. The whole situation so far as this building is concerned can be summed up in one brief statement: careful search failed to reveal anything about the building or its physical equipment that could be considered educationally hopeful or progressive.

SCIENCE EQUIPMENT

At least two years' work in natural science is offered in each of these schools. In School A and School B the amount is greater. Just what equipment is available for the teaching of these courses, which include general science, botany, biology, physics, and chemistry?

School A

Although equipment and facilities for chemistry teaching have not been provided as yet, there has been provision made for the work in general science and physics. The equipment provided by purchase has been somewhat supplemented by the ingenuity of the science instructor with the assistance of some of his interested pupils. The Board of Education contemplates the addition of chemistry equipment in the near future.

School B

The principal of School B has had only a small amount of money to spend on equipment and supplies for chemistry, but has made good use of the funds allowed him. This is especially

noticeable in the purchase of chemicals, where he has avoided the over-stocking in some lines which is too common in science departments. The Board of District B has expressed its intention of adding several hundred dollars' worth of equipment and supplies within the next year.

School C

Years ago one case of science equipment was purchased by this school. The assortment of paraphernalia that now remains would probably be appraised at less than twenty-five dollars. Many parts are lost and most of the remaining pieces of apparatus are out of repair. Some very good work has been done in securing local material for the work in botany, but the other sciences are almost entirely restricted to the work of the textbooks. Quoting the words of the principal, "We were able to get together enough apparatus for a couple of experiments in electricity, but that was all we could do in the way of experiments."

School D

The provision of science equipment here is comparable to that in School B so far as affording opportunity for manipulation of apparatus is concerned.

School E

No science equipment is provided here. The science courses offered are textbook courses.

In the absence of an objective measuring stick by which the science equipment of a school can be evaluated, the foregoing statements will at least serve to call attention to certain serious deficiencies in the instructional equipment of these schools. The result of instruction in the subjects taught will be discussed in a later chapter.

THE LIBRARY

"No high school is properly equipped to perform its public obligations which is not provided with adequate library facilities. The public will not get full return on the funds invested in a high school plant and in the operation of the same if a modern library is not maintained in such school." The foregoing statement, taken from one of its official publications,[1] sets forth in

[1] *Library Manual for High Schools.*

clear and unmistakable language the estimate put upon high school libraries by the Pennsylvania State Department of Education. For some years a member of the staff of the department has given full time to library work in connection with the schools and a wide variety of measures have been urged as a means of raising their level of efficiency.

The following standards are embodied in the recommendations for high school libraries.[2]

> The library should have a separate room whenever it is possible. If a separate room is not available, a classroom should be fitted up with bookcases and a reading table, even if recitations have to be held in the room. The room should be easily accessible from the study hall.
>
> In small high schools with an enrollment of fewer than one hundred pupils it is very common to have a main room in which each pupil has his own desk. When conditions make possible the use of home desks, library books, and equipment should be provided in this room.
>
> Greater care should be exercised in the selection of books for a small library than for a large one. It is difficult to select the few best books out of a multitude of really good books. Every book purchased for a high school library should be a useful book and one that will be in constant use.
>
> For third-class high schools there should be a general library of not less than 400 volumes for pupils of high school age. At least 100 of these should be bought each year.
>
> There should be a definite annual appropriation for the purchase of books, subscriptions to magazines, equipment and supplies.

Just what is the condition of the libraries found in these five high schools when studied in the light of the suggested standards? How many and what types of books are found in them? Are the facilities which are on hand actually made available? Are these libraries thought to be an essential part of the schools' equipment and hence furnished from tax funds, or are they provided by money raised through the work of the pupils and the teachers? All of these questions must be answered if these libraries are to be evaluated as a part of the instructional equipment of these five high schools.

Financial Support Given These Libraries

Investigation of the financial statements of the secretaries of these five districts shows that their libraries have received very little assistance during the past two years. For the year ending July 1924, District C spent the sum of $89.25 on the

[2] *Ibid.*

school library. For the year ending July 1925, District B spent on its library the sum of $7.31. These expenditures cover "Books, Repairs, and Other Expenses of the Library." During a period of twenty-four consecutive months these five school districts spent a total of $95.56 on this very important and vital part of the school's instructional equipment. Three of the five school districts did not authorize the expenditure of a single cent on the library during this two-year period.

From the foregoing it is quite apparent that the responsibility for the high school library in these schools rests almost entirely upon the shoulders of the teachers and principals.

Contents of Libraries in These Schools

It is easy enough to measure these libraries quantitatively. The number of separate volumes on their shelves is as follows:

Library of School A	330 volumes
Library of School B	374 volumes
Library of School C	454 volumes
Library of School D	923 volumes
Library of School E	187 volumes

In three of these libraries the number of books falls short of the number set up as a desirable standard for schools of this size, but that in itself may mean very little. The 187 books comprising the library of School E may, if wisely selected, be very much more helpful to the boys and girls of the school than the 923 books of School D's library. In evaluating a collection of books, factors other than mere number must be taken into consideration. Since no satisfactory measuring stick for secondary school libraries has yet been devised, the most feasible method of estimating the value of these is to compare their collection of books with the lists suggested by the State Director of School Libraries. In its *Library Manual for High Schools* the State Department offers a list of approximately six hundred titles which it suggests as a desirable nucleus. Eighty per cent of the entire number are books which may be classified as "General Reference Books" and are rather closely related to the work undertaken in the courses. The remaining twenty per cent is made up of fiction selected with the aim of providing a basic list of books for recreational reading.

How do the collections of books in these five schools compare

with the suggested list? One is immediately struck with two very noticeable differences. First, the very large amount of fiction and adventure found here in contrast with the very small amount of reference material. Second, the proportionately large number of books which are not recommended by either the Pennsylvania Director of Libraries or the National Council of Teachers of English.[3]

A rather detailed investigation of the contents of these libraries reveals the following conditions.

School A

Although numbering only 330 volumes, this library is ranked first among the five for the following reasons:

1. Attention has been given to the need of reference material. The collection includes, 15 books on science, 50 books on history, 42 books bearing on the work in agriculture. Most of these books are of comparatively recent date.
2. A comparatively large number of its books are by standard authors. Shakespeare, Emerson, Hawthorne, Scott, Dumas, Kipling, and others are well represented.
3. Books considered of no value by the teaching staff have been culled out so as to encourage the use of books believed to be of value.
4. In addition to the books for the pupils, there is a collection of thirty well selected professional books for the use of the teachers.

School B

With the assistance of the State Director of Libraries about 300 books were eliminated from this collection during the current year. Additional reference material from a variety of fields should now be added. The principal has added a number of books during the current year and plans are on foot to further strengthen the collection.

School C

The books in this library give little evidence of thoughtful selection. The majority are either fiction or adventure. One searches in vain among the 454 books for a single volume bear-

[3] *Books for Home Reading.* Prepared by the Committee of the National Council of Teachers of English.

ing the name of Mark Twain, Joseph Conrad, Booth Tarkington, Herbert Quick, Ernest Poole, or O. Henry. The writings of Horatio Alger, George A. Henty, and Bertha M. Clay are all represented. Burroughs is given a place of prominence, if not of honor. His writings on these shelves include *Tarzan of the Apes, Tarzan the Terrible, The Beasts of Tarzan,* and *Tarzan and the Ant Men.*

School D

This collection consists of 923 volumes and is the largest of the five. Judge by its appearance its shelves have served as a dumping ground for the discarded juvenile fiction and adventure stories of the community. These are present not only singly but in long series as well. Examples are easy to find. The Frank Merriwell Series in this library consists of:

Frank Merriwell's School Days
Frank Merriwell's Hunting Tour
Frank Merriwell's Races
Frank Merriwell's Chums
Frank Merriwell's Sports Afield
Frank Merriwell's Trip West
Frank Merriwell's Return to Yale
Frank Merriwell's Loyalty
Frank Merriwell's Victories
Frank Merriwell Down South

As there are fourteen copies of Frank Merriwell on the shelves, some volumes of this series are duplicated. None of the Betty Wales Series seems to be missing. The following well worn copies of this series are a part of the school's instructional equipment:

Betty Wales, Freshman
Betty Wales, Sophomore
Betty Wales, Junior
Betty Wales, Senior
Betty Wales on the Campus
Betty Wales, B. A.
Betty Wales Decides

Lack of space forbids the detailed listing of the other series. The mere mention of The Motor Boys Series, The Motor Ranger Series, Dave Darrin Series, a series of Western stories consisting of eleven books, the Tarzan series, and a six-book series of detective stories will give at least an idea of some of the material found here.

The principal of School D is attempting to improve his library facilities. Some excellent books have been added during his connection with the school. Much remains to be done. Many books must be added and many must be discarded before this library can be considered the educational laboratory it should be.

School E

This library is a miniature of the library of School D except that it has an even smaller percentage of books that would be acceptable to authorities on the high school library. All of the evidence needed to confirm this statement may be secured by looking over the series found in this collection of 187 ostensibly educational books. Among the series represented are:

The Radio Boys Series (4 volumes)
The Marjorie Dean Series (4 volumes)
The Grace Harlowe Series (7 volumes)
The Dave Darrin Series (5 volumes)
The Automobile Girls Series (3 volumes)
The Ralph Series (3 volumes)
The Moving Picture Girls Series (2 volumes)
The Boys of Columbia High Series (2 volumes)
The Tom Swift Series (2 volumes)
The Golden Boys Series (2 volumes)
The Mildred Series (2 volumes)

In addition to these series there are a number of single books such as *The Boy Aviators, The Bobbsey Twins at the Seashore, The High School Boys' Club,* and others which are of the same general character. The needs of the pupils in the way of high standard fiction, history, biography, and science have received scant attention.

All of these libraries suffer under the handicap of unattractive and unsatisfactory quarters. Library A is in cases in the English room, which is used for a classroom seven periods per day. Library B is in a large otherwise unoccupied room, but lacks tables or desks, so the books must be carried to the "main room" for use. This "main room" is regularly used for recitation purposes. The quarters of Library C are somewhat cramped and are unattractive. The room used by Library D is inconvenient. poorly lighted, and poorly ventilated. Library E occupies several cases in the single room devoted to high school instruction. This room is used for recitations each of the eight periods of the school day.

When asked for an estimate of his own library, each principal expressed dissatisfaction with the facilities provided. Each indicated his desire to add books that would be of genuine value to the pupils of the school. Each complained at the lack of funds. Each indicated that his board had almost completely left the problem to him to be either neglected or solved as he saw fit. Principals A, B, and D are raising money from various school activities and are insisting that the money thus raised

be spent for books which they approve. Principal E has raised some money and is attempting to secure more, but is exercising very little influence over the selection of books. The statement "The children help to raise the money, so I feel I ought to allow them to select the books they want," explains the attitude of Principal E on this question. The result is reflected in the quality of the books purchased.

If the recommendation of the State Director of Libraries be accepted as a standard toward which to work, these libraries can properly be checked or ranked in the light of that standard. On that basis these schools would rank in the order A, B, C, D and E. Libraries A and B come near enough to the standard to appear to be of value. Libraries C, D, and E fall so far short of the standard that as a means of supplementing and furthering the educational work of their school they are of questionable value.

SUMMARY

The five buildings occupied by these high schools were erected an average of thirty-one years ago and are educationally behind the times. All of them lack certain features that are essential and none of them even approximates the modern standard in high school plants. Some comparatively slight alterations would materially raise the rating of Building A and Building B. Building E and Building C are so far below standard that they should be abandoned so far as high school purposes are concerned.

Although all of these schools offer courses in natural science none is properly equipped to handle laboratory work and some have absolutely no science equipment.

The responsibility for providing books for the libraries of these schools rests almost entirely on the principals and teachers. None of the libraries come anyways near the standard set up by the State Director of Libraries. Libraries A and B contain enough acceptable material to be of educational value. Libraries C, D and E are so overloaded with cheap juvenile adventure and fiction as to be of doubtful value. None of these libraries has the advantage of attractive, well lighted, convenient quarters.

CHAPTER V

PRINCIPALS AND TEACHERS IN THESE SCHOOLS

BOARDS OF EDUCATION IN THESE DISTRICTS

The communities supporting these schools exercise their control largely by means of the local boards of education which are elected by popular vote and serve a six-year term. Each board consists of five members. The occupations of the various members are indicated in Table IX.

TABLE IX

OCCUPATIONS OF BOARD MEMBERS IN THESE SCHOOLS

School A	School B	School C	School D	School E
Contractor	Physician	Dairyman	Mechanical Engineer	Carpenter
Foreman	Merchant	Carpenter	Electrical Engineer	Steel Worker
Bank Examiner	Minister	Housewife	Printer	Steel Worker
Foreman	Mechanic	Housewife	Textile Worker	Steel Worker
Housewife	Housewife	Farmer	Department Store Manager	Steel Worker

During the year 1924-1925 the following members of the respective boards received remuneration as indicated below.

	School A	School B	School C	School D	School E
Secretary	$150.00	$60.00	$60.00	$100.00	$120.00
Treasurer	35.00	30.00	50.00	100.00	0.0

Objective devices by which we can determine the value of a school board's services or the amount of interest its members have in education are not available. However, there are several significant statements which may be made relative to the boards of education in these five schools.

1. Investigation of the records shows that during the year 1924-1925 eighty-five per cent of the members attended all of their board's meetings and that ten per cent additional attended eighty per cent of the meetings.

2. In every case the members of the boards seemed to be genuinely interested in the schools and in conferences with the writer expressed what appeared to be a sincere desire to promote the welfare of the pupils in every way possible.
3. Friction between principals and their boards was conspicuous by its absence. Each principal seemed to be both liked and respected by the majority of his board members.
4. Without a single exception the principals expressed themselves as being well satisfied with the local board. The principal of School A said, "Our relations are very friendly. Our board members coöperate much better than I would ordinarily expect. They are glad to help wherever they can." Statements, similar in effect, were made by the other four principals.

From the foregoing statements it seems only reasonable to conclude that, so far as their Boards of Education are concerned, these schools are more fortunate than is frequently the case. Regardless of the efficiency or inefficiency of these schools, it is apparent that the present teaching force does possess, to a very large degree, the confidence and respect of a majority of the members of the board in the various schools. This must not be taken as meaning that all of the patrons of these schools are satisfied. It does mean, however, that most of the board members are satisfied. This is further attested by the fact that every principal and teacher employed in these five high schools during the year 1924-1925 was offered a contract for the year 1925-1926.

PRINCIPALS OF THESE SCHOOLS

The principals of these schools devote such a large part of their entire time to classroom teaching that a lengthy discussion of their administration and supervisory qualifications seems superfluous. However, when we consider that in addition to their duties connected with the high school they are, theoretically at least, responsible for the elementary grades, their importance as administrators and supervisors becomes more apparent. Whatever is done to insure that instruction in the elementary grades is well organized, efficiently administered, and competently supervised, is done by these principals in addition to their other

work. The wide range of their responsibilities, the difficulty and complexity of their duties, justify interest in the professional and personal equipment they bring to their positions. Table X gives certain facts relative to their training, experience, age, and present salary.

TABLE X

AGE, SALARY, TRAINING AND EXPERIENCE OF PRINCIPALS

			Experience			Preparation		
	Age	Present Annual Salary	Years Taught Before This Year	Years in Normal School	Years in College	Years in Graduate School	Certificate Held	Degree Held
Principal of School A	29	$2200	7	3	2	1/5	Provisional College	A.B.
Principal of School B	23	2000	2	0	4	0	College	B.S.
Principal of School C	41	2000	14	0	4	2	College	M.A.
Principal of School D	42	2000	14	3	4	1	College	A.B.
Principal of School E	37	1395	17	3	3/5	0	Normal Diploma	None

The following facts should be noted relative to Table X. The principals of all the schools save School E are men. The principal of School E has had the least training, the most experience, and receives the lowest salary. All of these principals were born in the state of Pennsylvania.

ESTIMATE OF GENERAL PROFESSIONAL INTEREST OF THESE PRINCIPALS

While it is granted that no entirely satisfactory basis for determining professional interest has been devised, it is believed that systematic efforts to grow professionally constitute evidence of professional spirit and interest, which is at least worth while considering. The writer has in mind regular professional read-

ing, attendance at summer schools, participation in extension work, and membership in professional bodies. Investigation shows that Principals A and B are both taking extension courses and that both definitely plan to attend summer school. Both showed a genuine desire to secure any material which promised to be of professional value to them and they seem to be working with vigor and enthusiasm. The same could not be said regarding Principals C, D, and E. Instead of enthusiasm and optimism, coupled with an obvious desire to improve their qualifications, they emphasized the impossibility of their making any professional growth under the conditions forced upon them by their present positions. The following specific statements will give an idea of their attitude. "I can't do much for myself as long as I am in a school like this. Anyway, I took all of the courses in Education while I was in college."—Principal of School C. "It is uphill work. There isn't much chance to do anything under existing conditions."—Principal of School D. "It keeps me busy doing the work that is to be done. Even then I never get caught up with that."—Principal of School E.

All of these principals are members of the Pennsylvania State Educational Association. Since practically all teachers in the state are members, the fact that they belong does not offer evidence of unusual professional spirit or interest. Membership in the above association represents the limit in their affiliation with professional organizations.

On the basis of available evidence of the kind mentioned there seems no reason to doubt that Principals A and B rank above the others in the matter of professional interest and spirit. To what may this difference be attributed? Is it due to the difference in age which Table X shows to be more than ten years? Is it due to the marked difference in the amount of experience? These are questions which this study does not attempt to answer. Is it possible that Principals C, D, and E, being in smaller schools, have a heavier burden of work than that carried by Principal A and Principal B? This phase of the problem will be given consideration in a later chapter.

TENURE OF THESE PRINCIPALS

It is generally agreed that the best interests of a school can not be served if there are too frequent changes in the personnel of

the teaching staff. If length of tenure is important so far as teachers are concerned, it is all the more important in the case of principals and superintendents who are entrusted with the organization and administration of the school. The year of service, within the school and within the present position, is shown below for the principals of these five schools.

Principal of School A now serving third year.
Principal of School B now serving second year.
Principal of School C now serving first year.
Principal of School D now serving ninth year.
Principal of School E now serving fourth year.

Ferriss [1] found that over thirty-one per cent of the principals in charge of small high schools in the state of New York in 1922 were serving their first year in their respective positions. The situation is somewhat more favorable in the five schools included in this study. Only one principal is serving his first year in his present position. The median is three years and the average is almost four years.

FUTURE PLANS OF THESE PRINCIPALS

All of these principals have been offered renewals of their contracts for next year. Their work seems to have satisfied their respective boards. At any rate, as has been previously pointed out, they were re-elected without contest or unpleasantness. This being true, it is significant that each of the principals expressed to the writer privately a very keen desire to find another position. Invariably, they wanted positions in larger schools. Three reasons for wishing to make the change were given by all.

1. The desire for a larger salary.
2. The wish to get away from the wide variety of duties which they claimed were imposed upon them in their present positions.
3. The feeling that the limit of professional responsibility had been reached so far as their own particular school system was concerned. This was repeatedly expressed by the statement, "I've gotten as far as I will ever get in this school."

In addition to the three reasons mentioned by all, the prin-

[1] Ferriss, *Rural School Survey of New York State*, page 105.

cipal of School A said, "Our load is so great that I can not do justice to either teaching or supervision."—"Our load is so heavy that our efficiency is seriously impaired."—"Worst of all, our professional contacts are so limited here that we are in serious danger of getting into a rut." The principal of School B said, "The town is full of retired farmers who are ultra-conservative." —"We should consolidate but it will take at least ten or twenty years."—"This is my third year here and my position is as big as I can make it."—"If I am going to make any real progress I shall have to get out of here."

Four out of the five were rather actively looking for better positions and expected to return only in case they were unable to get places they considered more desirable.

TEACHERS IN THESE SCHOOLS

In addition to the principals, six teachers were employed in these schools. Table XI gives the facts relative to their age, training, experience, and present salary.

TABLE XI

AGE, SALARY, TRAINING AND EXPERIENCE OF TEACHERS

			Experience				Preparation	
	Age	Present Annual Salary	Years Taught Before This Year	Years in Normal	Years in College	Years in Graduate School	Certificate Held	Degree Held
Teacher 1 School A	29	$2100	4	0	4	2/5	Provisional College	B.S.
Teacher 2 School A	23	1250	1	0	4	1/5	Provisional College	A.B.
Teacher 1 School B		1215	7	2	0	0	Normal	None
Teacher 2 School B	26	1170	6	2	0	0	Normal	None
Teacher 1 School C	58	1170	26	4	2	0	College	B.S.
Teacher 1 School D		1630	2	0	4	1/5	College	A.B.

By referring to Tables X and XI we find that of the eleven teachers and principals employed on the staffs of these schools one holds a Master's degree, and seven others hold Bachelor's degrees. Of the total number 72.7 per cent are college graduates, while over half have done at least some graduate work. Of the 416 principals and teachers of small high schools in New York studied by Ferriss [2] sixty-two per cent were college graduates. Ferriss found that data collected from 2,387 cases in 1919-1920 gave substantially the same result. On the basis of such comparisons as can be made with the data which are available, it seems clear that the staffs of these five schools have had more academic and professional preparation than is usually the case in schools of this size.

PROFESSIONAL READING DONE BY THESE TEACHERS

The amount of professional reading that is being done by the principals and teachers of these schools is very small. The principals of Schools A and B seem to be doing more than all the others put together, but even they admit that their professional study and reading during the school year is extremely limited. The excuse which is given by all is, "I just do not have the time." A glance at their schedules is all that is needed to show the basis for this statement.

TENURE OF THESE TEACHERS

The tenure in the present position of those employed solely to each is as follows:

Teacher 1 of School A now serving third year.
Teacher 2 of School A now serving second year.
Teacher 1 of School B now serving sixth year.
Teacher 2 of School B now serving first year.
Teacher 1 of School C now serving ninth year.
Teacher 1 of School D now serving third year.

Forty-nine per cent of the teachers in the small schools studied by Ferriss [3] were teaching their first year in the particular high school, so here again the comparison is favorable to the five schools in this study. Such data as are available indicate that in the matter of tenure these five schools are more fortunate

[2] Ferriss, *Rural School Survey of New York*, pages 101–102.
[3] *Ibid.*, page 105.

than the average small high school. This statement applies to teachers as well as principals.

FUTURE PLANS OF TEACHERS

All of the teachers indicated their desire to leave their positions at the end of the present school year. In explaining their reasons for wanting to make a change, they contended that, in their present positions they were constantly confronted with the following unfavorable conditions:

1. The teaching schedule was so heavy as to be unreasonable.
2. A great deal was expected but little or nothing was furnished in the way of library facilities or laboratory equipment.
3. There was practically no social life in the community. The time outside of school work was dull and monotonous.
4. The salaries were meager.
5. The living conditions were unsatisfactory for those who were not residents of the town. In four out of the five communities it was difficult for an outsider to secure satisfactory living accommodations.

That there is a basis for their desire to leave these communities can not be denied when we take into account that although all of the six were offered re-election for the year 1925-1926 only one accepted the contract and returned in September, 1925. The one who returned was Teacher 1 of School C who, being fifty-eight years old, partially deaf and with poor eyesight, was unable to secure another place.

LIVING CONDITIONS FOR PRINCIPALS AND TEACHERS

Those teachers who were not residents of the communities in which they were employed complained of the difficulty in securing proper living accommodations. The price charged was not the principal cause for complaint. The chief difficulty was in getting accommodations which were wholesome and satisfactory. Table XII shows the cost of board and room in the five communities and the salaries paid to all principals and teachers.

The living expenses are about uniform, except in the case of District D, which is located very close to a much larger city and is a much more expensive place in which to live. The sal-

TABLE XII

SALARIES AND COST OF BOARD AND ROOM IN THESE COMMUNITIES

	Sex	Salary	Average Cost of Board and Room per Week in Communities
Principal of School A	Male	$2200	$ 9.50
Teacher 1 of School A	Male	2100	9.50
Teacher 2 of School A	Female	1250	9.50
Principal of School B	Male	2000	9.00
Teacher 1 of School B	Male	1215	9.00
Teacher 2 of School B	Female	1170	9.00
Principal of School C	Male	2000	9.00
Teacher 1 of School C	Female	1170	9.00
Principal of School D	Male	2000	13.00
Teacher 1 of School D	Female	1630	13.00
Principal of School E	Female	1395	10.00

aries quoted for School D are for ten months, while all of the others are for nine months.

RELATIONS OF PRINCIPALS AND TEACHERS TO LIFE OF COMMUNITIES

These eleven principals and teachers participate but little in the life of the communities in which they work. The principal of School A is active in the American Legion and certain other organizations. The principal of School B takes some part in the Parent-Teachers Association. The principal of School C is promoting a Home and School League. Teacher 1 of School A is a member of the Grange and of the Civic Club. This represents the sum total of the extra-school activities of these eleven individuals. No evidence could be found that the other teachers or principals were making any serious effort to exert influence in their respective communities. This may be accounted for in two ways:

1. It may be because of lack of time. Several expressed a desire for more community activities and seemed willing to assist, but claimed that their school work required all of their time and energy.
2. Six of the eleven are non-residents and have not become really affiliated with the interests and groups of their communities. Of this number, two principals and one teacher still reside outside of their districts. They are not even

"suit-case teachers" who arrive on Monday morning and depart on Friday afternoon. Instead, they arrive at the opening hour of the school's daily session and leave very soon after the end of the last class period.

3. There are comparatively few local activities in which teachers in these communities may participate.

There is serious need for live progressive leadership in these communities. There are two reasons why this need is not more fully met by those who teach in the schools. One reason is that those teachers who are qualified to serve in this capacity are so loaded down with other duties that they have neither the time nor the energy to serve as leaders in out-of-school enterprises. The other reason is that a majority of the teachers seem to feel that their sole responsibility is in the classroom and that when the school day ends their responsibility has been discharged.

SUMMARY

The boards of education in these schools are made up of individuals who seem to be genuinely interested in securing educational advantages for their communities. Practically all of the members attend board meetings regularly and give every evidence of wanting to promote the interests of the school. Friction between boards and those employed in the high school is at present reduced to a minimum. This is confirmed by the fact that all of the teachers and principals in these high schools were offered re-election for next year. All of the principals expressed complete satisfaction at the degree of coöperation received from the local board. The teachers and principals in these schools have a longer tenure than is the case in the average small high school. They also have had more academic and professional preparation than the principals and teachers in a majority of similar schools have had.

The amount of professional reading and study done by these teachers and principals during the school year is very small. The chief reason given for this is lack of time and energy due to the unreasonable teaching schedule. In general, there is very little participation in community activities by members of the school staff.

Every teacher and principal expressed a desire to secure a

position in a larger school next year. While the possibility of receiving a larger salary undoubtedly has weight, it was not the chief reason advanced for wanting to make a change. Other reasons such as opportunity for specialization, more social advantages, a more satisfactory teaching schedule, and better living conditions were stressed. The teachers and principals do not complain of the cost of living in these districts so much as at the difficulty of securing suitable accommodations. Although all of the teachers were offered re-election for next year only one accepted and returned and this was after attempts to get into a larger school had failed.

CHAPTER VI

THE ADMINISTRATION AND SUPERVISION OF THESE SCHOOLS

The Pennsylvania State Department of Education is vitally interested in the small high schools of the state. It is devoting considerable attention to their needs and problems, and, in a variety of ways, is attempting to be of service to them. Standards and requirements are being raised from time to time and measures are being taken either to eliminate unsatisfactory small schools or to bring them up to higher standards. Efforts are being made to strengthen the two- and three-year high schools or to replace them with junior high schools or with larger schools having larger teaching forces and offering four years' work. Table XIII shows the trend during the last twelve years.

TABLE XIII

CHANGES IN THE NUMBER OF HIGH SCHOOLS IN THE SEVERAL CLASSES *

Year	No. H.S. of Class I	No. H.S. of Class II	No. H.S. of Class III	Total No. of H.S.
1912–1913	164	283	415	862
1922–1923	521	268	218	1007
1923–1924	570	233	198	1001

* *Educational Surveys*, page 166.

With more than one thousand high schools in the state, the amount of time and attention the department can give to any particular school is limited. Table XIV, below, shows the

TABLE XIV

AMOUNT OF TIME SPENT IN THESE SCHOOLS BY REPRESENTATIVES OF STATE DEPARTMENT DURING YEAR

School	Number of Visits by Representative	Length of Visit
School A	1 *	45 minutes
School B	1	50 minutes
School C	1	2 hours
School D	1	2 hours
School E	1	60 minutes

* In addition to this the Vocational Supervisor spent several hours in School A.

amount of time spent in each of these five schools by representatives of the state department during the school year of 1924-1925 as reported by the principals.

It is apparent that, under the present arrangement, the visits are solely inspectional in their nature. Even as such their value is limited. It is hardly possible for an inspector to know a great deal regarding the condition of a school or to be of very much inspiration or assistance to its teaching force if his schedule enables him to spend only an hour or two in it during the entire school year.

TABLE XV

AMOUNT OF TIME SPENT IN THESE SCHOOLS BY THE COUNTY SUPERINTENDENT AND HIS ASSISTANTS DURING YEAR

School	No. of Visits by Superintendent	Total Time	No. of Visits by Assistants	Total Time
School A	2	2 days	1	2 hours
School B	1	60 minutes	1	2 hours
School C	3	1 day	3	1 day
School D	1	1 day	1	1 day
School E	2	2 hours	3	4 hours

The superintendents of the counties in which these schools are located expressed the desire to spend more time out in the schools. Here again the reason given for not getting out into the schools oftener was "we simply can not find the time."

Most of the information received by the state department relative to these schools is derived from the system of reports and records which are in use in the state. During the year 1924-1925 the following records and reports were required from all of these schools.

Attendance. A uniform system of reports on attendance is insisted upon by the state department. The Attendance Bureau requires a report of attendance at the end of each calendar month of the school year and a complete report at the end of the year.

Annual Financial Report. No appropriations are paid by the state unless this report is filed. It is due on or before August 1 of each year and includes information under the following heads:

Taxation
Receipts
Payments
General Control

Expenses of Instruction
Expenses of Auxiliary Agencies
Expenses of Operation of School Plant
Expenses of Maintenance of School Plant
Expenses of Fixed Charges
Debt Service and Capital Outlay
Debt Service
Capital Outlay
Sinking Fund Report
Bonds and Temporary Loans

High School Report. This annual report is due in December and contains information under the following main headings:

I. Enrollment of Pupils
II. Graduates
III. Time Schedule and General Information
IV. Buildings and Property
V. Teachers
VI. Program of Studies
VII. Sizes of Classes or Sections
VIII. Improvements

Both the Financial Report and the High School Report are checked and certified by the county superintendent who forwards them to the state department.

Two types of records are kept within the schools themselves. They are the records of attendance and of scholastic standing. As is to be expected in small schools, the methods of handling routine problems, such as tardiness and absence, are very simple. Information regarding the progress of the pupils is sent to the parents at the end of each month. The report card which is used for this purpose is of the conventional type. The enrolling or registering of pupils for their various subjects takes place

TABLE XVI

SIGNIFICANT FACTS RELATIVE TO CALENDARS AND SCHEDULES IN THESE SCHOOLS

School	Number of Days in Session	Length of School Days Exclusive of Intermissions	Number of Class Periods per Day	Minutes in Each Class Period	Length of Noon Intermission in Minutes
School A	180	5 hr. 40 min.	8	40	80
School B	180	5 hr. 40 min.	8	40	80
School C	180	5 hr. 40 min.	8	40	80
School D	200	5 hr. 40 min.	7	45	75
School E	180	5 hr. 45 min.	8	40	80

during the first days of the school session and the schedule of recitations is made at the same time. Table XVI shows certain facts relative to the calendars and schedules in these schools.

A glance at the table shows that on the points covered there are no significant differences among the five schools except in length of term. School D has a term of 200 days, while each of the other schools has a session of 180 days. Investigation shows that Schools C, D, and E are more fortunate than are a great many schools of their size and class in the state. Thirty-two per cent of the high schools in Pennsylvania in the same class as School C have terms of less than 180 days.[1] More than fifty per cent of the schools in the state in the same class as Schools D and E have terms of fewer than 180 days. Although the State Department of Education urges the elimination of the short term, the report of 1923-1924 shows a total of 152 high schools offering only 160 days' work per year. Without a single exception these are two-year or three-year high schools and accordingly are ranked respectively in the second and third class. Every school in the state which is ranked as a first-class high school has a term of at least 180 days. It has been charged that the small high school is likely to offer only a relatively short term of school. So far as the state of Pennsylvania is concerned this charge can be substantiated. However, special attention is called to the fact that each of the five schools included in this study have sessions of at least nine months. This fact must be kept in mind later when the results of instruction are being considered.

THE DAILY SCHEDULES OF RECITATIONS IN THESE SCHOOLS

The arrangement of the daily schedule of recitations is not a simple task even in a school large enough to permit duplicate sections in the various subjects. It is much more difficult in schools which have a limited teaching force. In order to understand the conditions under which these teachers work the daily schedule of recitations must be taken into account.

Analysis of the schedule for School A, page 58, brings out the following significant facts.

The principal teaches Algebra, Plane Geometry, Solid Geometry, American History, European History, Civics, and Prob-

[1] *Educational Surveys*, page 170.

SCHEDULE OF RECITATIONS IN SCHOOL A

	Monday	Tuesday	Wednesday	Thursday	Friday
First Period	*(P) Vacant	(P) Vacant	(P) Solid Geometry	(P) Plane Geometry	(P) Plane Geometry
	*(1) Fruit Growing	(1) Fruit Growing	(1) Poultry Raising	(1) Vacant	(1) Vacant
	*(2) Latin 1	(2) Latin 1	(2) Latin 1	(2) Vacant	(2) English 4
Second Period	(P) Algebra	(P) Algebra	(P) American History	(P) Algebra 1	(P) Algebra 1
	(1) Animal Husbandry	(1) Animal Husbandry	(1) Poultry Raising	(1) Animal Husbandry	(1) Animal Husbandry
	(2) Latin 4	(2) Latin 4	(2) Latin 2	(2) Latin 4	(2) Latin 4
Third Period	(P) Plane Geometry	(P) Plane Geometry	(P) Plane Geometry	(P) Vacant	(P) American History
	(1) General Science	(1) General Science	(1) General Science	(1) Vegetable Gardening	(1) Vegetable Gardening
	(2) English 4	(2) English 4	(2) English 4	(2) Latin 2	(2) English 2
Fourth Period	(P) Solid Geometry	(P) Solid Geometry	(P) European History	(P) Solid Geometry	(P) Solid Geometry
	(1) Gen. Sci. Lab.	(1) General Science	(1) Gen. Sci. Lab.	(1) Vegetable Gardening	(1) Vegetable Gardening
	(2) Latin 2	(2) Latin 2	(2) Latin 4	(2) Latin 1	(2) English 3
	Noon Intermission				
Fifth Period	(P) Probs. of Democracy	(P) Probs. of Democracy	(P) Probs. of Democracy	(P) American History	(P) Vacant
	(1) Shopwork 1 and a	(1) Shopwork 1 and 2	(1) Vacant	(1) Poultry Raising	(1) Vacant
	(2) English 3	(2) English 3	(2) English 1	(2) English 4	(2) Latin 1
Sixth Period	(P) American History	(P) American History	(P) Algebra 1	(P) Vacant	(P) European History
	(1) Shopwork 1 and 2 cont.	(1) Shopwork	(1) Vacant	(1) Poultry Raising	(1) Fruit Growing
	(2) Vacant	(2) Vacant	(2) English 3	(2) English 3	(2) English 1
Seventh Period	(P) European History	(P) European History	(P) Civics	(P) Civics	(P) Civics
	(1) Physics	(1) Physics	(1) Physics	(1) Physics	(1) Fruit Growing
	(2) English 1	(2) English 1	(2) English 2	(2) English 2	(2) Latin 2
Eight Period	(P) Civics	(P) Civics	(P) Vacant	(P) European History	(P) S e w i n g
	(1) Physics Lab.	(1) Physics	(1) Physics Lab.	(1) Physics	
	(2) English 2	(2) English 2	(2) Vacant	(2) English 1	

*P = Principal. (1) and (2) = Teacher 1 and Teacher 2.

lems of Democracy. Out of a 40-period week he spends 33 periods in actual classroom teaching. His teaching schedule for each week calls for the preparation of 33 lessons divided among seven different subjects. As the head of the local system he also is held responsible for directing instruction in the grades, which enroll 123 pupils and employ four teachers. For all of these duties, which include the preparation of his lessons, clerical work, administration and supervision of both high schools and grades, discipline, conferences with pupils and patrons, and a multitude of other tasks, he has at his disposal a total of 280 minutes per week or an average of 56 minutes per school day.

Teacher 1 is responsible for instruction in Fruit Growing, Poultry Raising, Animal Husbandry, Vegetable Gardening, Shopwork, Physics, and General Science. These seven subjects involve 33 periods of class work per week. In addition to his class work this teacher is responsible for whatever athletic coaching is done.

Teacher 2 carries the heaviest teaching load. Responsible for the work in four years of English and three years of Latin, she is scheduled for 35 periods of teaching per week. Each day's work involves the preparation of seven different lessons. As now arranged the schedule leaves 40 minutes per day free for marking papers, clerical work, conferences with pupils, the planning and preparation of seven lessons, and other duties.

Instruction in sewing, which is given the eighth period on Friday, is given by a county home economics supervisor who comes to the school for a limited time once each week to offer that course.

SCHEDULE OF RECITATIONS IN SCHOOL B

1st Period	(P)	Algebra 1
	(1)	English 2
	(2)	American History
2nd Period	(P)	Plane Geometry
	(1)	
	(2)	Problems of Democracy
3rd Period	(P)	
	(1)	English 4
	(2)	

4th Period (P) Solid Geometry
(1) English 1
(2) Biology

Noon Intermission

5th Period (P) French 2
(1) Latin 1
(2) European History

6th Period (P) French 1
(1) Latin 4
(2) General Science

7th Period (P) Chemistry
(1) Latin 2
(2) Civics

8th Period (P)
(1)
(2)

The subject offering of School B is somewhat narrower than that of School A and as a result the teaching load is lighter. The principal teaches Algebra, Plane Geometry, French 1, French 2, Solid Geometry, and Chemistry. This arrangement leaves two periods per day for the preparation of teaching materials, and for other duties connected with administering and supervising instruction in the high school and the grades.

By combining the third and fourth year classes in English and in Latin and alternating the work by years, Teacher 1 is enabled to reduce the number of classes per day from eight to six. These six classes are English 1, English 2, English 4, Latin 1, Latin, 2, and Latin 4.

The program of Teacher 2 calls for the instruction of six classes per day. They are American History, Problems of Democracy, Biology, European History, General Science, and Civics.

SCHEDULE OF RECITATIONS IN SCHOOL C

1st Period (P)
(1) Latin 1

2nd Period (P) Solid Geometry
(1) Latin 2

3rd Period (P) Biology
(1) English (3 and 4)

4th Period (P) Physics
(1) English 2

Noon Intermission

5th Period (P) American History
(1) English 1

6th Period (P) Plane Geometry
(1) Latin 3

7th Period (P) Algebra 1
(1)

8th Period (P)
(1) Community Service

The schedule for School C calls for the instruction of six classes by each member of its staff. These six classes are divided among three separate fields. Here, as in the other four schools, the principal is nominally the superintendent of the local system

SCHEDULE OF RECITATIONS IN SCHOOL D

	Monday	Tuesday	Wednesday	Thursday	Friday
First Period	(P) Algebra 1 (1) English 2	(P) Advanced Algebra (1) Latin 1	(P) Algebra (1) French 2	(P) Civics (1) Latin 2	(P) Algebra 1 (1) French 2
Second Period	(P) Plane Geometry (1) English 3	(P) Plane Geometry (1) English 3	(P) Plane Geometry (1) English 3	(P) Plane Geometry (1) English 3	(P) Plane Geometry (1) English 1
Third Period	(P) Chemistry (1) Latin 1	(P) European History (1) English 1	(P) American History (1) Latin 1	(P) European History (1)	(P) Advanced Algebra (1) Latin 1
Fourth Period	(P) European History (1) English 1	(P) Algebra 1 (1) French 2	(P) European History (1) English 1	(P) Algebra 1 (1) French 2	(P) American History (1) French 1
		Noon Intermission			
Fifth Period	(P) Civics (1) Latin 2	(P) American History (1) French 1	(P) Advanced Algebra (1) French 1	(P) Advanced Algebra (1) French 1	(P) Civics (1) Latin 2
Sixth Period	(P) American History (1) French 1	(P) Civics (1) Latin 2	(P) General Science (1) Latin 3	(P) General Science (1) Latin 3	(P) General Science (1) Latin 3
Seventh Period	(P) General Science (1) Latin 3	(P) Chemistry (1) English 2	(P) Chemistry (1) English 2	(P) Chemistry (1) Latin 1	(P) Chemistry (1) English 2

and is supposed to direct the work in grades one to twelve inclusive.

Although there are but seven periods in each school day at School D, each of the two members of the staff teaches eight subjects. The principal is scheduled to give thirty-five periods of instruction per week, while his assistant teaches thirty-four classes per week. Each is teaching in three separate fields.

SCHEDULE OF RECITATIONS IN SCHOOL E

1st Period	Algebra
2nd Period	European History
3rd Period	Civics
4th Period	Biology
	Noon Intermission
5th Period	English 1
6th Period	Plane Geometry
7th Period	General Science
8th Period	English 2

A single teacher gives all of the instruction in School E. Under the present arrangement this necessitates the teaching of eight classes each day, each class being in a different subject. The eight subjects taught each day represent four separate fields. As is the case in the other four schools, this principal is nominally, at least, the head of the local school system. To provide time for supervision, the local board of education permits the dismissal of the high school a few minutes early once each month. This time, approximating from thirty to fifty minutes per month, the principal is expected to spend in looking after the work of the first eight grades.

TABLE XVII

SIZES OF CLASSES OR SECTIONS

Number of Classes in All Subjects Except Chorus and Gymnasium Taught by:	Number of Pupils in Class: 1–5	6–10	11–15	16–20	21–25	26–30	Total Classes
Principal—School A			7				7
Teacher 1—School A	2	3	1			1	7
Teacher 2—School A		1	6				7
Principal—School B	1	1	2	2			6
Teacher 1—School B	1	2	1	2			6
Teacher 2—School B		4		2			6

Number of Classes in All Subjects Except Chorus and Gymnasium Taught by:	Number of Pupils in Class: 1–5	6–10	11–15	16–20	21–25	26–30	Total Classes
Principal—School C		2	3	2			7
Teacher 1—School C		5	2				7
Principal—School D	3	2	3				8
Teacher 1—School D	4	2	2				8
Principal—School E		8					8
Totals	11	30	27	8	0	1	77

It should be noted from Table XVII that:

88.3% of the classes enroll 15 or fewer pupils each.
53.2% of the classes enroll 10 or fewer pupils each.
14.3% of the classes enroll 5 or fewer pupils each.

TABLE XVIII

PUPIL LOAD PER WEEK AND CERTAIN OTHER FACTS RELATIVE TO EACH TEACHER

	Average Weekly Pupil Recitation Periods per Teacher	Number of Courses Taught	Number of Preparations	Number of Preparations per Week	Number of Fields in Which Teaching is Done
Principal of School A	427	7	7	33	2
Teacher 1 of School A	378	7	7	33	3
Teacher 2 of School A	425	7	7	35	2
Principal of School B	353	6	6	30	3
Teacher 1 of School B	340	6	6	30	2
Teacher 2 of School B	335	6	6	30	2
Principal of School C	445	6	6	30	3
Teacher 1 of School C	315	6	6	30	3
Principal of School D	303	8	8	35	3
Teacher 1 of School D	250	8	8	35	3
Principal of School E	240	8	8	40	4

According to the figures of the Bureau of Education [2] the average weekly teaching load in 136 high schools, found in all sections of the United States is as follows:

English	609
Language	554
History	628
Mathematics	620
Science	568

Comparison with Table XVIII shows clearly that the teachers in our five small high schools carry a much lighter pupil load than is carried by the average teacher in the larger high school of the city. This fact should have a direct bearing upon the amount of individual instruction given the pupil of the small school. Further reference will be made to this problem in the chapter dealing with instruction in these schools.

It has already been pointed out that each of the five principals in these schools is, nominally at least, the head of the local school system and is expected to assume responsibility for the quality of the work in grades one to eight inclusive. Table XIX shows the number of grade teachers and grade pupils which are under each of the principals.

TABLE XIX

ELEMENTARY TEACHERS AND PUPILS WHICH THESE PRINCIPALS ARE EXPECTED TO DIRECT

	Grade Teachers	Grade Pupils
Principal of School A	4	123
Principal of School B	3	99
Principal of School C	2	87
Principal of School D	7	238
Principal of School E	5	203

When questioned regarding supervision of instruction, each of the five principals admitted that a certain amount of it is essential. A majority indicated either their desire or willingness to do this work if the time could be found. However, each protested that under present arrangements no time for it could be found. They claimed that their teaching schedule alone called for all of their time and energy. Absolutely no clerical assistance is provided for any of them. So far as supervision of classroom

[2] U. S. Bureau of Education Bulletin, June, 1923.

instruction by these principals is concerned, it can be dismissed with the brief statement, "There is none."

SUMMARY

The Department of Education of the State of Pennsylvania considers the small high schools the weakest part of the secondary school system and is making a serious effort to be of assistance to them. The visits of department representatives in these schools have, of necessity, been entirely inspectional in their nature. The county superintendents and assistant superintendents are able to get into direct contact with the schools a bit oftener, but they too are working under the handicap of having too many schools to supervise in a limited time. Under the present limitations supervision by outside agency of the work of the school can not be nearly as helpful as it should be. State and county educational officers derive much of their knowledge of these schools from the annual reports which are required of all schools receiving state aid.

In addition to being the head of the local school system and, theoretically at least, responsible for the quality of the work done in the grades, each of these principals carries a very heavy teaching load. In number of recitations per week every teacher and principal in these schools carries a subject load that is at least thirty per cent in excess of that which is recommended by the North Central Association of Secondary Schools and Colleges. The classes in these schools are small, more than half of them containing ten or fewer pupils each. The weekly pupil teacher load is very much lighter than is carried by the average teacher in the larger high schools of the country. The principals of these schools do not make any pretense of supervising the classroom teaching in the schools of which they have charge. No clerical help is provided in any of these schools.

CHAPTER VII

THE PUPILS IN THESE SCHOOLS

In studying the problems and evaluating the results achieved by these schools the human material with which they work must not be neglected. How do these boys and girls compare with the boys and girls of other high schools? Has their educational progress through the school system been normal, and if not to what extent has it been either retarded or accelerated? How do they rank in intelligence? Do they seem to possess any outstanding characteristics which are not possessed by typical high school pupils? What is their recreational life? Judged by the general atmosphere of their respective schools, what does the general morale of each group seem to be? And finally, what vocation do most of them plan to enter and what are their plans for the future?

Although all of the foregoing questions are important, not all of them can be answered with accuracy and completeness. The answers to some of these questions are a matter of record and can easily be secured, while the answers to others, through the use of objective measuring devices, can be secured with a fair degree of accuracy. To facilitate comparison with the measured results of instruction, questions of this type dealing with problems such as the intelligence of these pupils and their rate of progress in school will be given attention in a later chapter. The other questions dealing with the study habits of these pupils, their recreational life, the extent of their outside reading, the general morale of each group, and their future plans can be answered only in terms of opinion based upon careful estimate. The discussion of this chapter will be confined to questions of the latter type.

STUDY HABITS

Estimates of studiousness on the part of the pupils in these schools must of necessity be based almost entirely on the observer's unsupported opinion. Unfortunately it is not yet possible

to measure the amount of mental energy that is being expended in a given time by either a group or an individual. Appearances here are so unreliable that any estimates in this field are likely to be dangerous. The pupil who seems to be hard at work may, in reality, be merely a clever loafer, while the one who seems to be dreaming or loafing may be hard at work.

This being true no serious attempt will be made in this study to analyze and measure the study habits of these pupils. That is a task that can well be left to the psychologist. Instead, this study will, in this connection, concern itself with the two following questions:

1. What seemed to be the attitude of the pupils toward study in school?
2. What seemed to be their attitude toward home study?

Any reasonable answer to the first question must take into account the conditions under which these pupils are expected to work. There are facilities such as quietness, freedom from too frequent interruption, fresh air, and sufficient reference material at hand, which are generally accepted as being, to an extent at least, conducive to concentrated mental effort.

The plants and instructional equipment having been treated in a former chapter, this discussion will mention only those items which are believed to have a direct effect on study. First among these is the study hall. Not a single one of these schools possesses a separate study hall. Invariably their study rooms are used as classrooms with a full quota of daily recitations. The following table shows the amount of time each study hall is used as a recitation room during an average day.

TABLE XX

Periods per Day Study Halls are Used for Recitation Rooms

School	Number of Periods in School Day	Number of Periods Study Hall is Used for Recitation
A	8	7
B	8	6
C	8	7
D	7	6
E	8	8

Reference to the table shows that the amount of time per day these study rooms are free from classes varies from 0 to 80

minutes. It must be remembered, though, that the other classes are in session during the same time so that in reality fewer than fifty per cent of the pupils are free to work during that time. In short, this means that of all the pupils in these schools a majority do not have even as much as one forty-minute period per day during which they can work undisturbed.

Under such conditions it would be strange if the quality and quantity of work were what they should be. Yet, judged by apparent attentiveness, avoidance of unnecessary noise, serious attention to their own business, and apparent indifference to the recitation going on in the front of the room, both School A and School B were getting a surprising amount of work done by their pupils.

The same could not be said regarding Schools C, D, and E. In each of those three schools and particularly in Schools D and E, the observer could not fail to note, among the members of the group supposed to be studying, the shuffling and fidgeting, the unnecessary noise, the gazing about the room, and other similar manifestations which are generally accepted as evidence of unsatisfactory study habits.

In justice to these three schools, mention must be made of the fact that their classrooms are not as large as the classrooms in Schools A and B, which does not give them quite as much chance to separate their groups. This factor may partly account for the marked differences noted. Regardless of the cause, the fact remains that the pupils of Schools A and B seem to have a far more serious and businesslike attitude toward their work than do the pupils of Schools C, D, and E.

HOME STUDY

If conclusions relative to study within the school are likely to be erroneous, estimates of study habits outside of the school are likely to be even more so. All that could be done here was to take the word of the pupil, and that was done. No name was signed to the statements and it was made clear that individual responses would not reach the principals or teachers. Even though the responses may not possess a high degree of reliability, they are of interest. In reply to the question "Do you study regularly outside of school hours?" the following percentages of affirmative answers were received in the respective schools:

School A	65%
School B	34%
School C	25%
School D	40%
School E	17%

Each of the pupils who had answered the above question in the affirmative was then asked to estimate the number of hours per week ordinarily spent in home study. According to these estimates, the average number of hours per week spent in home study by those pupils is as follows:

School	Hours per Week
A	7
B	5
C	3
D	5
E	2

It has been pointed out that none of these schools provides a really satisfactory place in which the pupils may study during school hours and that in three of the schools there is an attitude of marked indifference toward serious work. To this must be added the fact that less than forty-three per cent of the total number of pupils in the five schools claim to do regular home study. Can the achievements in the subjects be up to accepted standards under conditions such as these?

OUTSIDE WORK

The amount of outside work done by these boys and girls is not excessive. According to their own reports less than twenty per cent of the total number have regular outside employment. This number is distributed among the schools as follows:

School	Proportion of Pupils Who Work Regularly Out of School
A	26%
B	29%
C	6%
D	8%
E	17%

MAGAZINES READ OUTSIDE OF SCHOOL

What proportion of their leisure time do these pupils spend in reading and for what type of reading material do they seem to

have a preference? Comparatively little attention is given to current magazines in these schools. School A makes some use of *The Literary Digest* in the social science work and the same is true of School B, but that is about all that can be said. The record indicates that none of these boards of education makes provision for magazine subscriptions. Some dilapidated back numbers of magazines donated by the principal were strewn about School C. The principal of School E said, "We did have some magazines, but the students wasted so much time on them and neglected their studies so that we don't take them any more."

TABLE XXI

MAGAZINES REGULARLY READ BY PUPILS

Name of Magazine	Frequency of Mention					Total
	School A	School B	School C	School D	School E	
American (The)	1	1	1	1	1	5
American Boy (The)				1		1
Blue Book (The)		1	1		1	3
Boys' Life	1					1
Colliers'		2	1			3
Comfort	1			1	1	3
Cosmopolitan (The)	3		1			4
Country Gentleman (The)	1	1	4			6
Farm Life	1					1
Farmer's Wife (The)		1				1
Good Housekeeping	1	2			1	4
* Literary Digest (The)	1	3		3		7
Ladies' Home Journal		1	1	2		4
Love Story	2	1		1		4
McCall's	2		2		1	5
National Geographic (The)		1		1		2
Pathfinder (The)	1					1
Pictorial Review (The)					1	1
Red Book (The)		1		1	1	3
*Saturday Evening Post	1		1	4		6
Science and Invention	1					1
Sport Stories	1					1
Successful Farming	2		1			3
True Confessions			1	1	1	3
True Story	3			2	1	6
Western Stories		1	1	1	1	4
Woman's World	1					1
Youths' Companion	1	2			1	4
Totals by Schools	25	18	15	19	11	

* Those magazines which are starred are included in the list of magazines recommended in the English Course of Study provided by the state.

In an attempt to learn something of the reading done outside of school hours each pupil was asked, "What magazine do you read regularly at home?" To this question fifty-two per cent of the total number replied "None." The forty-eight per cent which claimed to read one or more magazines regularly was rather evenly distributed among all of the schools. Each of these pupils was then asked to name the magazine read with the greatest degree of regularity. Table XXI indicates what magazines were named and their frequency of mention.

The list of magazines in Table XXI is probably not a highly reliable one. No attempt will be made to rate these magazines mentioned. The list is merely given as the pupils' unverified statements as to their magazine reading.

The task of supplementing the courses with up-to-date magazine material is essentially a curriculum problem and as such will be given attention in a later chapter. However, two facts should be noted at this time. First, the pupils of these schools have not developed the habit of reading magazines of accepted standards either in or out of school. Second, although some attempt to remedy this situation is being made in both School A and School B, it is receiving very little attention in Schools C, D, and E.

BOOKS READ OUTSIDE OF SCHOOL

With the understanding that their replies would not be made known to anyone within the local school, the following request was made to all pupils in each school: "Please write the name of any book or books, not assigned in your school work, which you have read outside of school hours during the past three months." Lacking a satisfactory measuring stick for evaluating the books named, the writer has checked the list of each school against the list of books for home reading prepared for the National Council of Teachers of English by its Committee on Home Reading. This list [1] consists of over twelve hundred titles. According to its own preliminary statement, the object of the list is to help high school pupils find books they "will like to read." The responses of the pupils of each of the five schools are shown on the following pages.

[1] *Books for Home Reading for High School and Junior High School.* Prepared for the National Council of Teachers of English by its Committee on Home Reading.

School A

Sixty-eight per cent of the pupils stated they had read no unassigned books during the three months. No pupil claimed to have read more than one book. The seventeen books named were: *

The Lost Trail
* The Mysterious Rider
The Rover Boys Abroad
To the Last Man
Moon Out of Reach
Leave It to Doris
The Plastic Age
Sons of Old Eli
Dawn of the Morning
The Thundering Herd
* The Hoosier Schoolmaster
* Up From Slavery
For the Honor of the School
* White Fang
The Big Town Roundup
Experiences of Buffalo Bill
The Desert of Wheat

School B

Fifty-three per cent of the pupils stated that they had read no unassigned books during the three-month period. The books named by the remaining nineteen were: *

* The Americanization of Edward Bok
The Life of Florence Nightingale
*Seventeen
K
The Girl of the Limberlost
The Broken Bow
Dorothy Vernon of Haddon Hall
Partners on the Out Trail
* A Man for the Ages
Camp Fire Girls
Pollyanna
The Red Signal
George Washington Jones
The Boy Scouts at Home
The Bar Sinister
* Robin Hood
* Tom Brown's School Days
* Quentin Durward
* The Black Arrow

School C

Sixty-three per cent of these pupils stated they had read no unassigned books. The remaining pupils named the following books:

The Heritage of the Desert
Em's Courtship
Indian Horrors
To the Last Man
The Light of Western Stars
The Shepherd of the Hills
The Man of the Forest
The Wanderer of the Wasteland
The U. P. Trail
The Girl of the Limberlost
The Desert of Wheat
The Lone Star Ranger

School D

Seventy-five per cent of these pupils stated they had read no unassigned books. The books named by the remaining students were:

* Books starred are on the list of the National Council of Teachers of English.

When a Man's a Man
His Wedded Wife
The Three Guardsmen
Steele of the Royal Mounted
* The Count of Monte Cristo
Corporal Cameron

School E

Fifty-nine per cent of these pupils claimed to have read no unassigned books. The remaining pupils named the following books:

The Ne'er Do Well
The Voice in the Wilderness
Freckles
Tempest and Sunshine
Her Father's Daughter

No attempt to appraise these books will be made in this study. One fact, however, is apparent. If the statements of the pupils are accepted as true, it is obvious that the report of the Committee on Home Reading has had but little positive influence on these pupils' reading. Only about twenty per cent of the books these pupils claim to have read outside of school during the past three months are on its list of more than twelve hundred titles.

RECREATIONAL LIFE

School A

The program of extra-curricular activities provided by the principal and teachers of this school is so extensive that the recreational needs of the boys and girls are rather well cared for so long as the school term lasts. Gradually these activities are being extended beyond the confines of the school year and are providing recreation and entertainment during week ends and vacations. It is exceedingly fortunate that this is true, because the town itself has made absolutely no move to insure that its youth use their leisure time in a helpful way. In the past there have been some Boy Scout troops, a town band, and an athletic association, and in these the boys of the town had at least some part. Indifference on the part of the townspeople has permitted all of these organizations to go out of existence. The local moving picture found business unprofitable, so it has been closed for some time. A picture show is located in a town five miles distant, and it is frequently patronized. Forty-eight per cent of these young people live in homes where automobiles are owned, so automobile riding is a common diversion.

The only local means of entertainment open to boys, outside

* Books starred are on the list of the National Council of Teachers of English.

of school functions, is the pool room. There are two of these and they are typical small-town pool rooms. They are filthy, unsanitary, and unattractive, and, as would be expected, they furnish a loafing place for the idlers of the community. If obscene and profane language furnishes a reliable index, their moral atmosphere is decidedly low; yet aside from school activities no other recreation is open to the boys, and they frequent these two places at such hours as the school is not in session. The town has done nothing to provide recreational life for its girls of high school age. Their needs in the way of social life, play, or wholesome recreation are apparently not even recognized by the community.

The situation is being slowly relieved for both boys and girls by the school which is promoting interest in athletic sports, music, etc. This will be given more detailed treatment in a later chapter. However, it should be emphatically stated here that the adults of the community are utterly neglecting either to recognize or to meet a very important obligation to their young people.

School B

School B is fortunate in that its physical environment is much more attractive and wholesome than the community of which School A is the center. It is at least a neat, attractive village with plenty of open spaces, tennis courts, and playgrounds. This in a measure accounts for the fondness for athletic games by both boys and girls. There are pool rooms here, but they are much more satisfactorily conducted so far as sanitation is concerned, and the boys are not encouraged to loaf about them. There are no organized efforts to stimulate the young people to a wholesome use of their leisure time.

School C

Farming being the principal occupation of this community, the boys and girls of school age do not spend as much time together as is the case in Communities A and B. There are no pool rooms, no picture shows, and very little social life except that which is connected with the religious life of the vicinity. Such leisure time activities as are evident among the young people seem to be rather aimless and unorganized.

School D

The problem in this community is comparable to that found in Community B.

School E

The boys of this village can either go to the neighboring towns for their recreation or they can loaf about the local refreshment parlors. They seem to prefer the latter. Their obscenity and profanity, even in the presence of school girls, is nothing short of disgusting. This diversion seems to take up most of their leisure time. The community affords no legitimate or wholesome recreation for either its boys or its girls.

It is apparent that not a single one of these five communities is really making a systematic effort to insure a wholesome use of leisure time by its young people of high school age. As a result most of the leisure time is wasted and in many cases it is worse than wasted. Here is a serious problem which these communities must sooner or later face. In Community A the school is doing its part to solve the problem, but it needs the assistance of the adults of the community. In the other schools and communities the problem does not even seem to be recognized.

GENERAL MORALE IN THESE SCHOOLS

Just what is the general morale of the pupils in these schools? Do these boys and girls seem willing to coöperate with their teachers and each other? Are they uniformly courteous and considerate to outsiders, their teachers, and each other? To what extent do they appear willing to assume responsibility for their own conduct? Do they cause disciplinary difficulty or do they willingly abide by rules of the school and the wishes of their teachers? How seriously do they attack their work?

School A

This school is made up in the main of serious boys and girls who are attacking their work with zest. While there seems to be a minimum of rules and regulations, practically all of the fifty-four pupils seemed to be attending strictly to business. Of disciplinary trouble there is none. The pupils are given considerable freedom, which they do not abuse. Courtesy and con-

sideration prevail. When the principal was called out of his classroom a pupil took charge immediately and the work proceeded smoothly. There was a general atmosphere of friendliness and good feeling and it was apparent that practically all of the pupils were proud of the school and jealous of its reputation. Everything points to a very high morale in School A.

School B

The tone of the school seemed to be very good. A bit less freedom is permitted here than is found in School A, but aside from that this group is on a par with the first school discussed. The general spirit of the school, the desire to uphold the school's good name, the serious attitude toward work, and the lack of disciplinary difficulty all combine to make a very satisfactory school so far as morale is concerned.

School C

The morale in this school compares unfavorably with that found in either School A or School B. The pupils seem indifferent toward their work. Their misconduct, while not serious, is at least irritating and annoying. They are not courteous toward either their teachers or each other. They seem to feel no particular responsibility for their conduct and some of them seem to need constant watching. Many of them seem to lack a serious purpose in their work. The conduct of a majority of the pupils is neither malicious nor bad, but it is annoying and almost entirely purposeless so far as thoughtful school work is concerned.

School D

The outstanding characteristic of the pupils of this school is their appearance of boredom. There seemed to be a general feeling that school is a sort of nuisance, an evil to be endured. In addition one could not fail to note the reluctance with which the pupils obeyed the instructions of the teachers. It seemed that some, not deriving legitimate interest from their school tasks, tried to relieve the monotony by coming as near to actual disobedience as possible without actually violating the rules of the school. Their impudence, their lack of courtesy, their indolence would rank this school far below Schools A and B and somewhat below School C.

School E

A more smug, self-satisfied group than the pupils which comprise this school would be very difficult to find. Most of these pupils seem to feel that their education is very nearly completed. One can spend days in this one-room high school and see very few evidences of courtesy, serious purpose, or hard work. If one were to judge these boys and girls by their actions, the conclusion would be that a majority feel they should be paid for attending school. Certainly the morale of this group is decidedly bad.

FUTURE PLANS

Two questions were asked in an attempt to get at the future plans of these pupils. The first was "Are you planning to go to college after you have finished high school?" The percentage of affirmative answers in the five schools was:

School A	43%
School B	26%
School C	13%
School D	13%
School E	0%

The second question was "What do you plan to do when you have completed all of the schooling you intend to take?" The answers to this question fall into two groups. Those who indicated that they were "undecided" and those who named the vocation which they expected to follow. The response in the five schools were:

School	Per Cent Undecided	Per Cent Indicating Choice of Occupation
A	78%	22%
B	76	24
C	81	19
D	83	17
E	91	9

It is apparent that whatever else these schools are doing for their pupils there is no evidence of an effective program of vocational or educational guidance.

SUMMARY

Data relative to intelligence as shown by test scores will be presented in the chapter dealing with measured results of instruc-

tion. This chapter treats of the study habits, the recreational life, the outside reading and similar characteristics of these pupils.

The arrangement of the schedules with the handicaps imposed by the buildings occupied by these schools is not conducive to concentrated study. Physical facilities for study are utterly inadequate. According to their own statements the majority of pupils do but little studying at home. The amount of outside work for pay done by these pupils is not excessive. Less than half of the pupils claim to read a magazine regularly at home. Over sixty-five per cent of the pupils stated they had read no unassigned book outside of school during the last three months.

None of these communities is making a systematic effort to provide wholesome recreational life for its boys and girls of high school age.

Less than twenty-five per cent of these pupils even expressed any preference as to future vocation. The remaining seventy-five per cent stated that they were undecided as to future plans.

CHAPTER VIII

THE CURRICULA IN THESE SCHOOLS

What shall be included in the curriculum [1] of the high school? This is probably the most perplexing and, at the same time, most vital problem now engaging the attention of students in the field of secondary education. What courses should be offered and what shall be their organization? The problem raised by these questions is difficult to solve even in a large high school where a wide range of subjects can be presented by specialists in their respective fields. That the problem increases in difficulty as the high schools decrease in size can hardly be doubted. The limitation in the number of courses offered, which of necessity results from a teaching staff limited to one, two, or three teachers, can not fail to narrow the selection of courses and make that selection more difficult.

If at one time the sole function of the high school was the preparation of students for college, that time has passed. For a very large majority of its pupils the secondary schools provide all of the education they receive above the work of the elementary school. Indeed, of those who graduate from the high schools of Pennsylvania only twenty per cent go on to college for further schooling, and according to the statement of the Pennsylvania Department of Education [2] the proportion of graduates continuing from schools of the type included in this study is even less. Since the program of studies in these small schools must be limited, in most cases at least, to essentials that are absolutely minimal, the importance of choosing these courses wisely will be generally recognized. Decision as to the subjects to be offered does not mean that the problem of the curriculum is completely solved. There yet remains the final arrangement of the subjects

[1] For purposes of this study the definition of curriculum as set forth in the Pennsylvania *Manual for High Schools* will be accepted. According to that statement, "A curriculum is a group of subjects or courses systematically arranged for any pupil or any clearly differentiated group of pupils. It extends through a number of years and leads to a certificate or diploma. Administratively a curriculum represents an arrangement of courses within which a pupil is directed in his choice of work leading to graduation."

[2] *Educational Surveys*, page 184.

which have been selected. This task is complicated by the fact that more than fifty per cent of Pennsylvania's high school pupils drop out before beginning the work of the third year. This proportion holds for all of the high schools of the state and the mortality is even higher among schools giving less than four years' work.[3]

It is imperative, then, that the subjects taken during the first and the second years be of maximum value to the largest number of pupils. Of one hundred typical boys and girls entering the ninth grade fewer than ten actually complete the high school course and enter college. This being true, the domination of the curriculum of the small high school by college entrance subjects is at once absurd and indefensible, unless it can be conclusively shown that, in addition to preparing for college, these subjects provide a maximum return to the pupils whose high school tenure is limited and to the community that pays the bill.

TABLE XXII

COURSES OFFERED IN HIGH SCHOOLS A, B, C, D AND E DURING CURRENT YEAR

School A (3 Teachers)	School B (3 Teachers)	School C (2 Teachers)	School D (2 Teachers)	School E (1 Teacher)
Eng. 1	Eng. 1	Eng. 1	Eng. 1	Eng. 1
Eng. 2	Eng. 2	Eng. 2	Eng. 2	Eng. 2
Eng. 3	Eng. 3 & 4	Eng. 3 & 4	Eng. 3	
Eng. 4				
Lat. 1	Lat. 1	Lat. 1	Lat. 1	
Lat. 2	Lat. 2	Lat. 2	Lat. 2	
Lat. 3 & 4	Lat. 3 & 4	Lat. 3 & 4	Lat. 3	
Algebra	Algebra	Algebra	Algebra	Algebra
Pl. Geom.	Pl. Geom.	Pl. Geom.	Pl. Geom.	Pl. Geom.
Sol. Geom.	Sol. Geom.	Sol. Geom.	Adv. Alg.	
Civics	Civics	Civics	Civics	Civics
Eur. Hist.	Eur. Hist.		Eur. Hist.	Eur. Hist.
Am. Hist.	Am. Hist.	Am. Hist.	Am. Hist.	
Probs. of Dem.	Probs. of Dem.			
Gen. Sci.	Gen. Sci.		Gen. Sci.	Gen. Sci.
Physics	Chemistry	Biology	Chemistry	Biology
	Biology	Physics		
Fruit Grow.				
Poultry Rais.	French 1		French 1	
An. Husbandry	French 2		French 2	
Veg. Gardening				
Shopwork				

[3] *Ibid.*, page 160.

The instructional staffs in the five high schools of this study are limited to one, two, or three regularly employed teachers. To facilitate comparisons as to the courses or subjects given by each, its entire offering during the current school year (1924-1925) is listed in Table XXII.

Analysis of Table XXII reveals three outstanding facts:

1. All of the schools put considerable emphasis upon what are generally considered to be college preparatory subjects.
2. Foreign language occupies a prominent place in four of the five schools. At the insistence of the state department, Latin was omitted from the program of School E this year. In the other four schools as many units of credit are given for Latin as for English.
3. The offerings in subjects vary but little among the communities.

An estimate of the amount of emphasis put upon instruction in the various fields may be reached by computing the percentage of the total number of pupil hours devoted to class work in the subjects of that field. This is brought out in Table XXIII which compares the five schools.

TABLE XXIII

PERCENTAGE OF TOTAL PUPIL RECITATION HOURS DEVOTED TO VARIOUS FIELDS IN THESE FIVE HIGH SCHOOLS

	School A	School B	School C	School D	School E
English	21.7	19.8	22.3	20.4	25.0
Social Studies	21.7	19.8	21.0	20.4	25.0
Mathematics	20.9	19.8	17.7	20.4	25.0
Science	16.8	19.8	19.7	12.3	25.0
Latin	13.1	13.0	18.3	16.2	----
French	0.0	7.7	----	9.7	----
Agriculture	5.7	----	----	----	----
Languages *	34.8	40.5	40.6	46.3	25.0

* This includes English and Latin and French in those schools which offer the subjects.

The task of determining by careful, scientific procedure just what should be included in the curricula of these high schools is clearly beyond the limits of this study. However, it might not be out of place to call attention to certain outstanding weaknesses, the existence of which, it is believed, no one will deny.

In its *Manual for High Schools* the Pennsylvania State

Department of Education has set up as essentials of adequate secondary school opportunity the five following types of work:

1. College Preparation.
2. Commercial Education and Training.
3. Home Economics.
4. Practical Arts.
5. Agriculture.

School A is making a sincere attempt to provide both college preparatory work and agriculture. The other four schools are confining their serious efforts to the college preparatory course. Some exceedingly superficial work in home economics has been done in School A and in both agriculture and home economics in School C. It has consisted of a few minutes work per week for a limited number of weeks and, in most cases, has been conducted by members of the county superintendent's staff. Aside from affording the boys and girls an opportunity to show their interest in this type of work, little was accomplished because of lack of time and equipment. What has been done may be somewhat in the nature of a beginning. It certainly can not be considered more than that. No accredited courses in music, art, physical education, or home economics are offered in any of these five schools.

With the enrollment in these schools ranging from twelve to fifty-three pupils, the difficulty of providing all of the types of secondary education which are really needed is apparent. Under the present administrative system the expense of providing a complete educational program would be practically prohibitive in all of these communities. The cost of building, equipment, and instruction necessary is beyond the reach of most small school systems. Since it is obviously impossible for a high school with limited enrollment to offer all of the courses desired by its pupils, the problem becomes one of choosing the type of work which is of maximum value to the largest number of pupils and to the community the school serves. It is plain that this problem is not solved by concentrating on college preparation for the small minority while the needs of a very large majority for home economics, practical arts, fine arts, health instruction, guidance, and agriculture are almost wholly neglected.

The task of offering a diversified program in a small school

is by no means a simple one. It is now and will continue to be a serious problem. However, that does not mean that these schools are doing the best that can be done under the circumstances. One practical measure for relief that has been almost entirely neglected is the plan of having one instructor serve two or even more schools. This can be arranged even under present conditions although it would, of course, be a simpler matter if the county were the unit of administration. At present the Pennsylvania school system is organized on the traditional basis of the district as the unit. The State Department of Education is urging that the district unit be abandoned and that a change be made to the county unit plan. Until this is done the small high school will continue to be unnecessarily held back by avoidable expenses, unwise duplication due to location, and other similar handicaps which can be avoided.

COURSES OF STUDY

The Superintendent of Public Instruction of the state is authorized to "prescribe minimum courses of study for the public schools.[4] Accordingly there have been issued and made available courses of study for a majority of the courses offered in these schools. In general these courses have been worked out in detail. They contain much material that should be genuinely helpful to those in charge of the courses. Expecting that they would be in general use the writer was surprised to find that in two of the schools the copies could not even be located and apparently had been lost for some time. Not a great deal of use was being made of them in the other schools. The only reasonable explanation of this situation is that practically all of these courses are built on the assumption that a rather wide variety of books, magazines, and reference material will be used by the pupils and to do this will add to the work of teachers who already feel that their load is too heavy. The teacher finds it easier to rely on the textbook as a guide than to follow the course of study.

TEXTBOOKS

The importance of the textbook in determining the subject matter of the curriculum as well as the method of instruction

[4] Section 2904—School Laws of Pennsylvania.

will be granted by any one who has observed the high school teacher at work. The lesser the training and experience of the teacher and the heavier the teaching load, the greater the likelihood that the materials presented in the courses, the organization and arrangement of that material, and even the method of its presentation will be quite largely determined by the textbook in use. Obviously then the selection of textbooks is of vital importance.

Most of the textbooks used in these schools are of comparatively recent copyright. A majority have been either written or revised during the last five years and are in rather wide use not only in Pennsylvania but in other states as well. However, there are some very outstanding exceptions to this statement. The following books now being used as basic texts in School C are indications of what may occur where ill-advised or penurious school boards control the textbook situation.

In this two-teacher school, offering a very limited curriculum, eight of the texts now in use were published seventeen or more years ago. Two of these texts were copyrighted thirty-two years ago. The text now being used in business arithmetic [5] is of the 1892 edition. The text in algebra was copyrighted in 1892 but was revised in 1906. Merely to scan this book revised nineteen years ago, calls to mind some of the significant changes in mathematics teaching since that date. The answers are of course an important part of its contents. The material included and the arrangement of the material are quite unlike the average algebra text of the last five or ten years. For example, the work on "graphic algebra" is found between pages 375 and 400. Incidentally the class has been going "straight through the book," and although the last month of the term has arrived, it is only as far as page 162.

Bad as is the situation in mathematics it is worse in the field of science, where three of the textbooks used average slightly more than twenty years of age. The text in physics, for example, is a book published in 1903. When the development that has taken place in natural science since 1903 is contemplated, one gets at least some idea of the type of science that is offered in the curriculum of School C.

[5] The pupils having completed the year's work in physics some months ago, the class has taken up the course in business arithmetic.

ADAPTATION TO LOCAL NEEDS

In Chapter II attention has been called to certain marked differences existing among the communities supporting these five schools.

To what extent are these schools shaping their programs to meet local needs? Just what is being done by each school to solve problems peculiar to its locality? School A is recognizing the agricultural interests of its rural patrons and is attempting to meet their needs through its course in agriculture. This single adaptation is the sole example of important curriculum adjustment to be found among these five schools. In all other respects the curricula vary but little regardless of the problems of the various communities. Take the case of School B and School E, for example. These two communities are separated by a distance of fifty or more miles and differ in a number of important respects. One is situated in a farming section of unusual prosperity; the other is in a section ill-adapted to agriculture. One is located in the open country and is comparatively free from the influence of the large city; the other is adjacent to a metropolis and shows a good many effects of its influence. The industries and social life of the two groups are quite unlike and there are other significant differences. To what extent are all of these differences reflected in the curriculum of each of the high schools?

Reference to Table XXII shows that the offerings are as follows:

	School B	School D
English	4 years	3 years
Latin	4 years	3 years
French	2 years	2 years
Mathematics	3 years	3 years
Social Science	4 years	3 years
Natural Science	3 years	2 years

Except for the fact that one school gives four years of work and the other three, their curricula are identical.

AIM OF THESE SCHOOLS

Judged in the light of their curricula the chief aim of these five high schools is the preparation of their pupils for entrance

to college or university. A study of their curricula and the arrangement of their courses forces one to the conclusion that much of their trouble results from a desire to imitate the work of the large urban high schools. This is directly contrary to the wishes of the Pennsylvania State Department of Education, which has emphatically insisted that "the small high school should not be regarded as a large high school in miniature but as a distinct social agency, which has the responsibility of adapting its subject matter, methods of instruction, and social life to the demands of modern life in its community. The small high school should not set as its goal the accomplishments of the larger high school." [6]

SUMMARY

The limitation placed on these high schools by their size has resulted in a very narrow offering. In practically all cases it is out of the question for these schools to offer more than one curriculum. In spite of the fact that comparatively few of their pupils are entering college, all of these schools put considerable emphasis upon what are generally considered to be college preparatory subjects. Foreign language occupies a prominent place in four out of five of these schools. In these schools as many units of Latin are given as of English. Two of these schools offer work in both Latin and French. The offerings of the various schools differ little, even though the communities served by the schools differ greatly in certain important respects. School A alone has made a serious attempt to serve the needs of its community so far as curricula are concerned.

The problem of providing a suitable program of studies is difficult in a large school. It is even more difficult here. The plan of having one instructor serve two or even more schools would be of practical value here and should be more widely used than it is at present. This plan would be easier to put into operation under a county unit plan of administration than it is under the present district unit plan.

The subject matter offered in the various courses is almost wholly determined by the textbooks in use. Certain textbooks in use in these schools are so antiquated that they should be discarded at once.

[6] *Educational Surveys*, page 161.

Judging from the courses offered, there has been no attempt to meet local needs except in District A. The chief aim of all of these schools seems to be the preparation of their pupils for entrance to college.

CHAPTER IX

THE INSTRUCTION IN THESE SCHOOLS

Judged on the basis of its relative importance in the high school, the phase of work which is most clearly deserving of careful study and scientific evaluation is the instruction given in the classroom. Buildings and equipment are important. Problems of finance merit serious study. Extra-curricular activities are worthy of attention. All of these and many other problems deserve consideration but all are secondary to the problem of instruction and the methods which are used. Fundamentally, "the school is organized and administered solely in order that it may be instructed" and in the last analysis its value must very largely be determined in the light of the instruction given and the results of that instruction.

The importance of this phase of the school's work was recognized from the very beginning of this study. The following measures were taken with the hope that they would facilitate the gathering of complete and accurate information relative to the methods of teaching used in these schools.

1. As has been pointed out in Chapter I, the original arrangements for the study were made in such a way as to develop a feeling of friendliness. No school was included in the study unless the principal in charge seemed to be in complete sympathy with the plan. It was made clear to all concerned that no one was on trial. Permission to make the study was secured not only from the state department but from each county superintendent and principal as well, so that there would be no reason for thinking of the investigator as an unwelcome intruder.
2. To prevent or at least lessen nervousness on the part of teachers unaccustomed to being observed, no recitations were observed during the first visit to each school. Instead, attention was directed to the plant, the records, the commu-

nity, etc., leaving the observation of class work to a time when friendly relations had been established.

3. There was an honest effort on the part of the investigator to make each teacher feel that he or she could profit professionally from certain phases of the study. For example, in administering the various tests, each teacher was supplied with surplus tests, and keys and information regarding the use of results. In practically all cases the scores were put into the hands of the teachers and principals to be used as they saw fit. At least some time-saving devices were called to the attention of every teacher and in various other ways the investigator attempted to render professional services that would in some measure compensate the teachers and principals for their services in connection with the study.
4. In order to reduce the amount of self-consciousness on the part of the pupils unaccustomed to observation, most of the visitation of classes was postponed until at least a casual acquaintance had been formed with a majority of the pupils. This was largely accomplished during the noon intermissions on the playground and during the periods before and after school. Difficult or impossible in a large urban high school, this was a comparatively simple matter in these schools ranging from twelve to fifty-three pupils.
5. By entering the classroom before class time and remaining until the close of the recitation, the observer took pains to disturb the classes as little as possible.
6. Wherever possible, the observer followed the practice of observing a series of three recitations of the same class rather than single, isolated recitations. This permitted the observer to note the continuity of the work, to check up on assignments, and to note time distribution.

The foregoing measures, taken to insure an opportunity to see class work under favorable conditions, have been set down in detail because even at best it is extremely difficult to secure accurate information regarding methods of instruction. Observation of work done under conditions that are very close to normal may form the basis for an intelligent estimate of the teacher's methods, but it can not do more than that, and hence, can not be wholly satisfactory. However, due to the lack of any scientifi-

cally established criteria for evaluating the teacher's methods, it furnishes the best basis for judgment available at this time.

Another factor which would lessen the value of these particular observations as a basis for accurately evaluating the normal classroom instruction is the fact that each of these schools was studied during the last month of its term. According to the statements of the teachers themselves, this nearness to vacation was causing a noticeable let-down in work and increasing the restlessness of the pupils. It is quite possible that the classes observed were not seen under really normal conditions. For that reason the discussion of the methods of instruction used in these schools shall be confined to certain outstanding characteristics of the teachers' procedure, the use made of material other than that provided by the text, the provisions for individual differences among pupils, and the types of tests and examinations used.

A total of thirty-four complete recitations were observed. Eighteen other classes were visited for periods ranging from ten to thirty minutes each. The recitations included English, Latin, Mathematics, Science and the Social Studies. In analyzing the work seen the Checking List and Standards for Supervision of High School Instruction[1] devised by Johnson were used to a considerable extent and in some cases its phraseology will be used in reporting what was seen.

School A

A higher degree of socialization was found in the social science classes of School A than in any other school. The pupils seemed to be interested in the work at hand. Their discussion was lively and was directed toward other members of the class rather than carried on solely for the benefit of the teacher. No attention was paid to the matter of discipline, yet the pupils exhibited a very high degree of courtesy toward each other and the teacher. There seemed to be a general desire or willingness to coöperate at all times. On two occasions, when the teacher was called out of the room, a member of the class acted as chairman and the work proceeded in an orderly manner. The pupils were encouraged to express their preference as to the problems to be taken up and had at least some voice in deciding what the class should undertake. There was a large degree of freedom and a minimum of disturb-

[1] Checking List and Standards for Supervision of High School Instruction, devised by Professor F. W. Johnson, Teachers College, Columbia University.

ance and interruption. Although no detailed lesson plans were made for this work, every lesson had a clear and definite aim which seemed to be recognized by the majority of the class members.

The work in English and Latin seen in this school was of a more formal type. There was less freedom on the part of pupils, the teacher quite completely dominating the recitations at all times. Few questions were asked by pupils. Participation was limited to those called upon by the teacher. The interest here did not seem so keen as the interest shown by the classes in social science, but in spite of this some comparatively good work was being done by the pupils. The teacher had unusual command of her subject matter and her presentation seemed to adhere to a clearly defined plan. Although her method was quite unlike the procedure of the social science teacher, its vigor and definiteness made it quite creditable.

The science teaching in School A is open to criticism on the ground that too much reliance is placed on lectures by the teacher and not enough laboratory or demonstration work is provided. Furthermore, the instructor has set up such high standards of achievement for his classes that, under present conditions at least, the work is far over the heads of the pupils. According to the teacher's own statement a large number of the pupils taking work in science will not receive a passing mark for the year.[2] The teacher seems to feel that the responsibility for reaching the standard set rests on the pupils alone.

School B

During the period allotted to classroom visitation in this school, a majority of the classes were engaged in review work in preparation for examinations. Because of this unforeseen interruption of the regular teaching schedule, it was not possible for the observer to visit a large enough series of normal recitations to warrant an expression as to the quality of the instruction.

School C

The instruction in English in School C was the poorest found in these schools. The class in literature was studying *Oliver Twist*. The method employed by the teacher was that of having

[2] A check up after the close of the year's work showed that of twenty-six pupils taking physics, seventeen were failed.

the pupils read the book orally in class. Most of the reading was done in a halting, stumbling fashion. The teacher interrupted this process only when the pupils encountered words so unfamiliar that the pupils would not attempt their pronunciation. Since only a small proportion of the class read with facility or expression, most of the pupils paid only enough attention to know where to begin to read as their turn came. This did not require a high degree of attention, as each was called on according to the seating arrangement of the class. Judged by the air of indifference exhibited, the bright pupils were bored by the monotonous reading of a story already read by them, while the dull pupils seemed to find nothing of interest in the lesson. The assignment for the next day's work was made at the close of the period. In making the assignment the teacher merely said, "For tomorrow's lesson begin where we have left off and take the next eight pages." Throughout a series of three recitations by this class, the above procedure was followed with but little variation.

The methods employed by this teacher in handling the advanced Latin class are on a par with those used in English. Most of the class time was devoted to translating, but the chief purpose of the work was being defeated by the almost open use of printed translations. Although not all of the pupils had secured these, those who possessed copies obligingly circulated them—almost under the eyes of the teacher, who seemed completely unaware that they were being used. The pupils seemed to know little or nothing about Latin forms, and lacking this foundation were getting very little out of the subject.

In the judgment of the observer the work of this teacher is far below that which the community has a right to expect. While there is no reason to question the teacher's sincerity, there are many reasons for questioning her present effectiveness. Investigation shows that she is now teaching her twenty-eighth year. This is her ninth year of service in this school. There are indications that neither her sight nor hearing are as keen as a teacher's should be. The pupils take advantage of this condition by doing slipshod work and indulging in horseplay of one kind or another. Patrons in the village expressed a feeling of obligation for past services rendered by this teacher and seemed reluctant to dispense summarily with the services of a faithful servant. As one

patron said, "She has to teach only a few more years until she gets a pension and we're giving her a chance to hold on for that." The motive is commendable, but the method of providing for her is thoroughly vicious. If this teacher has given efficient, faithful service in the past and is no longer competent, adequate provision should be made for her. The present method of "taking care of her" at the expense of the school's efficiency is unfair to her and a serious injustice to the pupils.

Some high grade work in botany was seen in School C. The teacher is an enthusiast in this field and this was reflected in the results. The surrounding territory had been ranged for materials. The class work was animated and interesting, the notebooks were excellent, and the pupils seemed not only to enjoy the work but to be learning considerable about the subject. It is regrettable that the enthusiasm of the teacher does not carry over into the other fields in which he teaches. When asked about the class in physics (which is reported to be a full year subject), the teacher stated that the class had finished the work of the course about two months before and had gone into another course. Inquiry regarding laboratory work in connection with the course in physics brought the following reply: "We have practically no equipment or apparatus for laboratory work. A single case was bought some time ago but many of the necessary parts have been lost. We rigged up a couple of experiments in electricity and then the physics class spent the rest of the time on the textbook." [3]

The work in algebra was being taught out of a text written in 1892 and revised in 1906. The pupils spend little time in checking their work but referred frequently to the section of answers. When asked, "Don't you believe you can find a more satisfactory text in algebra?" the teacher replied, "Oh, I can teach one text as well as another. Anyway, these books are on hand and we are expected to use them."

School D

The work in English and Latin in School D was very much better than that seen in School C, though not equal to that seen in School A. The fact that the work of School D was visited during the last three weeks of a ten-month term and that the weather

[3] The text in physics is a 1903 edition of Higgins' *Lessons in Physics.*

was unusually warm and oppressive may partly account for the listlessness of the pupils. Another equally important cause for it may have been the instructor's tendency to monopolize the recitation period. Although the group was small, less than sixty per cent of the members actively participated in the class discussion. Fully a third of the teacher's questions could be answered by a mere yes or no and a majority of these were in no way followed up by the teacher. Frequently the questions seemed to have little relation to each other, and at times the instructor's aim was by no means clear to the observer. There was a distracting element present, however, and in fairness to all concerned it must be said that the teacher was forced to labor under the handicap of conducting her classes in a large room which was at the same time being used as a study hall by other pupils.

School E

The best teaching seen in School E was in the ninth grade algebra class. Although the text was followed very closely, the teacher presented the work in a superior fashion. The brief period of testing and drill upon the work of the preceding lesson was especially well used. None of the classes in this school has more than six pupils. The smallness of the algebra class made it possible for the teacher to give a good deal of assistance to all who encountered difficulty. In making the advance assignments the teacher carefully explained the new work which grew naturally out of work already familiar to the class. All of the pupils were kept busy and very little of the time allotted to this subject was wasted.

The work in science was not nearly so well done as the work in algebra. Two courses are offered in School E. Absolutely no apparatus has been provided, so they are textbook courses and nothing more. As such they are conducted in a formal, bookish fashion. A definite aim for these courses seems lacking. There seemed to be no attempt to connect the science of the textbook with the everyday life of the pupils. Of the six pupils in the second year course only one seemed to have any interest whatever in the work of the class. The methods of instruction used did not encourage initiative or stimulate interest. No responsibility was placed upon the pupils and, aside from the spirit shown in algebra, a large majority of the pupils exhibited little or no interest in their subjects.

SUPPLEMENTARY MATERIALS USED BY THESE TEACHERS

A certain amount of usable supplementary material is to be found in each of these five high schools. Granting that much of it was unwisely selected, that much of it is inappropriate or valueless, and that much of it is now out of date, there still is to be found some usable reference and supplementary material in each of these schools. What use is being made of it? To what extent are the teachers taking advantage of the usable material that actually is available? The Pennsylvania State Department has repeatedly stressed the importance of each high school possessing and using an adequate library. In a recent bulletin [4] every high school in the commonwealth is earnestly urged to "provide a library which may be used as a book laboratory by every pupil and teacher, to the end that the courses of study may be enriched and vitalized, and that pupils may acquire the habit of turning easily and readily to books and fact material in print." Are these schools meeting this demand? Are these boys and girls being taught to use supplementary materials? Every bit of evidence that could be gathered indicates that not one of these schools is using supplementary material to an appreciable degree. The courses in social science and in agriculture in School A and the courses in social science in School E give evidence of making some use of supplementary material, but even they fall far short of what should be done along this line. It is conservative to say that ninety-five per cent of all the material presented and studied in all of the courses in all of these schools is found between the covers of the textbooks used. Not one recitation was found in which reference or supplementary material played a dominant part. In every recitation observed in these five schools the material upon which the work was based and to which the pupils gave their attention was the material of the textbooks.

Very little use is made of current magazines in these schools. It is true that the boards of education have neglected to provide adequately this type of material. But even where principals have been able to secure magazines, they are used comparatively little in connection with the courses in English, history, or science.

[4] *Basic Reference Books for High Schools*, Bulletin No. 19, 1925, issued by the Pennsylvania Department of Public Instruction.

What is the reason for this serious neglect of a phase of secondary education which is of admitted importance? Are these teachers not alive to the needs of their pupils or are they simply indifferent and negligent? The answer is to be found in the heavy demands of the teaching schedules these teachers are expected to carry. The intelligent use of supplementary material requires time and thought and planning. During the current year these eleven teachers have carried an aggregate of seventy-seven courses. Most of these seventy-seven courses continue throughout the entire school year, which means that each of these eleven teachers conducts from six to seven classes in as many subjects each school day during the entire session. Reference to Chapter VI shows that these subjects take each teacher into from two to four separate fields, which adds to work involved.

How much can be expected of these teachers in the way of enriching and vitalizing their courses through the use of supplementary material if this process of enrichment adds to a teaching load which, according to their contention, is already far too heavy to be efficiently carried? Is there no limit to the work a teacher can do? So long as these teachers are expected to carry their present schedules of courses, it is altogether likely that the material presented in these courses will be restricted to the narrow confines of the textbooks in use.

THE WORK IN SCIENCE

Just how valuable are courses in natural science that are taught with little or no laboratory work as an integral part of the instruction? This is a question upon which additional research is badly needed. At present the best opinion seems to hold that without properly conducted laboratory work many of the values of the courses are not realized. Reputable writers on this subject may differ as to the relative merit of the laboratory method and the lecture-demonstration method, but practically all agree that effective science teaching must include a large amount of one or the other. There is no denying the fact that most of the science courses given in these five high schools are in reality mere textbook courses. Not one of these schools has made adequate laboratory provision for the courses offered. In one case the science teacher has seriously attempted to devise equipment to supplement that on hand, but this is an exception to the general

practice. Resourceful science teachers have been known to secure remarkable results with inexpensive "home-made apparatus." Why are not these teachers more active in devising equipment, in utilizing the materials of the school building, the homes, and the community? Here again one important answer is "Lack of time." Even in a properly equipped school well-handled laboratory work requires more time than is required for a lecture or ordinary type recitation,[5] and the teacher who seriously attempts to devise or provide apparatus in a school where it is either deficient or entirely lacking, will find it exceedingly expensive of time. A glance at the schedules of these science teachers as given in Chapter VI will show at least one excellent reason why they employ their present methods.

In the main the science courses are textbook courses, and textbook courses they will remain until adequate equipment is provided by the school districts or until the teaching schedules are adjusted so as to allow those in charge of the work at least some opportunity to remedy the defect.

PROVISION FOR INDIVIDUAL DIFFERENCES AMONG PUPILS

Provision for individual differences among pupils may be of two types; through adjusted assignments which take these differences into account, and through special help for those needing it. Such provision as is made in these five schools is almost exclusively of the latter type. Pupils who get behind their classmates are in most cases given special help. This is good as far as it goes. Unfortunately it deals only with those who differ by having less than average mental ability, while it entirely neglects those who differ from the normal by having more than average ability. No cases were found where the teacher either urged, expected, or required the brighter pupils to do work not assigned to the entire group. It may be done occasionally, but no evidence of such practise could be found. The size of classes permits individual help for those having trouble with the work and most of these are given assistance, but while they are being helped there is a distinct tendency for the pupils of higher ability to rest on their oars. A real program of taking care of individual differences includes provision for stimulating and keeping active the advanced group as well as the retarded group. Such a pro-

[5] Brownell and Wade, *The Teaching of Science and the Science Teacher*, page 256.

gram is not found in any of these schools. The amount of time at the disposal of these teachers probably has a bearing on this problem as well as the other problems that have been raised in this chapter.

TESTS AND EXAMINATIONS

The practises in tests and examinations used in these schools cover a wide range. Some teachers test by brief quizzes given each week; others rely solely on the monthly examination. A good deal of stress is put upon final examinations and considerable time is taken up by them. Only one teacher of the eleven was making any real attempt to use newer type examinations or tests. All of the others relied solely on the essay type examination. With the small classes the amount of paper work is not excessive, but, even so, a time-saving device such as a hectograph would permit the teacher to save time that could very profitably be distributed among other duties.

SUMMARY

Recognizing the importance of a careful evaluation of the methods of teaching in these schools, every care was taken to insure as favorable conditions for observation of class work as could be brought about. Even under favorable conditions an outsider will inevitably find it difficult to arrive at an accurate estimate of the work observed. Because of this only outstanding characteristics of the work observed, the extent to which supplementary material other than that provided by the text is used, the provision for individual differences, and the types and frequency of examinations used are discussed in this chapter.

In the judgment of the observer, the best teaching was seen in School A, while the poorest was found in School C. In general, the teaching observed was very formal in nature. A large part of it did not seem to have any noticeable aim. In most cases the presentation of material followed its arrangement in the textbook used. Some good drill was seen in mathematics but more of it was lifeless. Even in these small classes there is a tendency to permit those who are reticent to avoid participation in the recitations. Here, as in other high schools, the teachers too frequently monopolize the recitation period. Very little use is made of supplementary material in these schools. Current

magazines have small place in the recitations observed. The principal excuse offered for not making more use of supplementary material is lack of time due to the heavy demands of the teaching schedule.

Most of the work in science is based entirely upon the textbook used. Comparatively little laboratory work is offered in any school and in some schools none is provided. Although there is some provision for individual differences in the teaching methods employed, it is entirely limited to those pupils who differ by being below normal in intelligence while those who differ by being above normal are neglected. The tests and examinations used are almost entirely of the essay type.

CHAPTER X

MEASURED RESULTS OF INSTRUCTION IN THESE SCHOOLS

Although the soundness of such policy may well be seriously questioned, it is apparent that these five small schools have set for themselves goals or objectives which are practically identical with the goals of objectives of the large urban high schools. Instead of establishing themselves as distinct educational institutions whose chief responsibility is the adaptation of their methods of instruction, their subject matter, and their social life to the needs of their communities, these schools seem to regard themselves as large high schools in miniature, and accordingly have set as their goal the accomplishment of the large high school.[1]

To what extent are those schools realizing their aim? What is their influence as judged by their apparent drawing power? Do the pupils attend regularly? Is the pupil's rate of progress satisfactory? Finally, just what are the results of instruction in these schools so far as they can be measured by standard tests, and how do these results compare with the results achieved in larger schools? It will be the function of this chapter to present such evidence as could be secured on these questions. In attempting to answer them attention will be given to the number of failures in the various subjects, the apparent drawing power of each school, the regularity of attendance, the amount of acceleration and retardation in each school, and finally the showing made on a large number of standard tests.

FAILURES IN THESE SCHOOLS

At the end of the current school year data as to the number of failures in each subject were secured from each school. The percentage for each subject is given in Table XXIV.

Analysis of Table XXIV shows a very wide variation in num-

[1] *Educational Surveys*, page 161.

TABLE XXIV

PERCENTAGE OF PUPILS IN VARIOUS SUBJECTS WHO FAILED TO RECEIVE PASSING MARK AT END OF CURRENT YEAR

	School A	School B	School C	School D	School E
English 9	35.7	17.6			
English 10	8.3				
English 11	7.6				
English 12	7.1	7.0			
Algebra 1	33.3	23.4			
Plane Geometry		11.7	9.0		
Solid Geometry	36.3				
Inter. Algebra					
Latin 1	41.6	41.1		7.0	
Latin 2		37.5			
Latin 3			22.3		
Latin 4					
French 1					
French 2					
Physics	65.4				
Chemistry		13.3			
Biology					
General Science					
Civics					
European History					
Total Number of Subject Failures Reported	39	22	3	1	0

ber of failures. School A fails by far the largest per cent of its pupils. The highest mortality is in physics, in which over sixty-five per cent of the class did not meet the year's requirements.

Schools C and D failed only a negligible number. In these two schools a total of four pupil failures were reported. Only one pupil failure was reported in School D and in School E every pupil passed in every subject taken. From this evidence it is reasonable to conclude that those in charge of the work in these two schools believe that the standards set up are being successfully met.

DISTANCE FROM SCHOOL

A study of the distance traveled by pupils to attend school will in certain cases throw some light on the school's drawing power. Table XXV gives the approximate distances traveled by all of the pupils in these schools.

TABLE XXV

DISTANCES TRAVELED BY PUPILS TO ATTEND THESE HIGH SCHOOLS

Pupils of	Distance Traveled*						
	½ Mile %	1 Mile %	2 Miles %	3 Miles %	4 Miles %	5 Miles %	6 Miles %
School A	60.2	3.7	7.5	3.7	11.3	3.5	9.4
School B	77.9	12.2	9.7				
School C	46.8	12.4	15.6	9.3	6.2	9.3	
School D	100.0						
School E	100.0						

* The distances indicated are approximate and are to the nearest point. The table should be read, "Of the pupils of School A, 60.2% live one-half mile or less from the school; 3.7% live approximately one mile from school," etc.

Because of the variability of a large number of factors, such as nearness to other schools, condition of roads, ease of securing transportation, etc., the facts brought out in Table XXV are insignificant so far as furnishing an index to the drawing power of the different schools is concerned. They merely show that School A and School C draw pupils from a much larger area than do the other schools. All of the pupils of Schools D and E live within a half mile of the school building.

REGULARITY OF ATTENDANCE

Certain facts relative to attendance are given in Table XXVI.

TABLE XXVI

ATTENDANCE IN THESE SCHOOLS DURING CURRENT YEAR

School	Days in Session	Percentage of Attendance
A	180	96.2
B	180	87.9
C	180	93.7
D	200	76.9
E	180	99.1

On the evidence of this record alone School E is securing much greater regularity of attendance than are the other schools. The

record of School D is much the worst. There is reason to question the report of School E. It indicates that only twelve pupils were enrolled and apparently this figure is used by the Attendance Bureau as a basis for computing the percentage of attendance. This is not entirely reliable. The principal states that a number of pupils not included in the twelve entered school in September, attended irregularly for some days, and then dropped out. These should have been taken into account in determining the attendance.

ACCELERATION AND RETARDATION

Taking the ages as of September 1 the extent of acceleration and retardation in each school is given in Tables XXVII to XXXI and the percentages for all grades for all five schools are given in Table XXXII.

TABLE XXVII

PERCENTAGE OF PUPILS—NORMAL, OVER AGE, AND UNDER AGE IN SCHOOL A

Boys		NINTH GRADE	Girls	
Normal	66.7		Normal	42.8
Over age	33.7		Over age	28.6
Under age	0.0		Under age	28.6
		TENTH GRADE		
Normal	33.3		Normal	12.5
Over age	33.3		Over age	50.0
Under age	33.3		Under age	37.5
		ELEVENTH GRADE		
Normal	50.0		Normal	60.0
Over age	25.0		Over age	20.0
Under age	25.0		Under age	20.0
		TWELFTH GRADE		
Normal	83.3		Normal	25.0
Over age	16.7		Over age	62.5
Under age	0.0		Under age	12.5
TOTAL BOYS			TOTAL GIRLS	
Normal	60.9		Normal	32.1
Over age	26.1		Over age	42.9
Under age	13.0		Under age	25.0

TOTAL BOYS AND GIRLS IN SCHOOL A

Normal	45.1
Over age	35.3
Under age	19.6

TABLE XXVIII

PERCENTAGE OF PUPILS—NORMAL, OVER AGE, AND UNDER AGE IN SCHOOL B

Boys		NINTH GRADE	Girls	
Normal	57.1		Normal	33.3
Over age	0.0		Over age	11.1
Under age	42.9		Under age	55.6
		TENTH GRADE		
Normal	50.0		Normal	25.0
Over age	0.0		Over age	12.5
Under age	50.0		Under age	62.5
		ELEVENTH GRADE		
Normal	0.0		Normal	33.3
Over age	0.0		Over age	00.0
Under age	100.0		Under age	66.7
		TWELFTH GRADE		
Normal	0.0		Normal	0.0
Over age	0.0		Over age	0.0
Under age	100.0		Under age	100.0
TOTAL BOYS			TOTAL GIRLS	
Normal	41.7		Normal	24.0
Over age	0.0		Over age	8.0
Under age	58.3		Under age	68.0

TOTAL BOYS AND GIRLS IN SCHOOL B

Normal	29.6
Over age	5.4
Under age	65.0

TABLE XXIX

PERCENTAGE OF PUPILS—NORMAL, OVER AGE, AND UNDER AGE IN SCHOOL C

Boys		NINTH GRADE	Girls	
Normal	50.0		Normal	0.0
Over age	25.0		Over age	100.0
Under age	25.0		Under age	0.0
		TENTH GRADE		
Normal	0.0		Normal	22.2
Over age	100.0		Over age	77.8
Under age	0.0		Under age	0.0
		ELEVENTH GRADE		
Normal	50.0		Normal	60.0
Over age	50.0		Over age	40.0
Under age	0.0		Under age	0.0
		TWELFTH GRADE		
Normal	0.0		Normal	50.0
Over age	75.0		Over age	50.0
Under age	25.0		Under age	0.0
TOTAL BOYS			TOTAL GIRLS	
Normal	27.3		Normal	30.0
Over age	54.5		Over age	70.0
Under age	18.2		Under age	0.0

TOTAL BOYS AND GIRLS IN SCHOOL C

Normal	29.0
Over age	64.5
Under age	6.5

TABLE XXX

PERCENTAGE OF PUPILS—NORMAL, OVER AGE, AND UNDER AGE IN SCHOOL D

Boys		NINTH GRADE	Girls	
Normal	33.3		Normal	20.0
Over age	55.6		Over age	20.0
Under age	11.1		Under age	60.0
		TENTH GRADE		
Normal	100.0		Normal	100.0
Over age	0.0		Over age	0.0
Under age	0.0		Under age	0.0
		ELEVENTH GRADE		
Normal	33.3		Normal	100.0
Over age	33.3		Over age	0.0
Under age	33.3		Under age	0.0
TOTAL BOYS			TOTAL GIRLS	
Normal	42.9		Normal	63.6
Over age	42.9		Over age	9.1
Under age	15.2		Under age	27.3

TOTAL BOYS AND GIRLS IN SCHOOL D

Normal	52.0
Over age	28.0
Under age	20.0

TABLE XXXI

PERCENTAGE OF PUPILS—NORMAL, OVER AGE, AND UNDER AGE IN SCHOOL E

Boys		NINTH GRADE	Girls	
Normal	100.0		Normal	0.0
Over age	0.0		Over age	100.0
Under age	0.0		Under age	0.0
		TENTH GRADE		
Normal	0.0		Normal	0.0
Over age	75.0		Over age	50.0
Under age	25.0		Under age	50.0

TOTAL BOYS AND GIRLS IN SCHOOL E

Normal	25.0
Over age	58.3
Under age	16.7

It should be noted that in School C and School E over half of the pupils are over age. In only one school (School D) are as many as half of the pupils in their proper grade. In School B the majority of the pupils are under age.

TABLE XXXII

PERCENTAGE OF NORMAL, OVER AGE, AND UNDER AGE IN ALL GRADES OF ALL FIVE SCHOOLS

Normal	37.8	Over age	34.6	Under age	27.6

Conditions for the entire state of Pennsylvania are given in Table XXXIII, which is based upon 73,674 pupils in the high schools during the year 1923-1924.[2]

TABLE XXXIII

VARIATION OF THE AGES OF PUPILS IN DIFFERENT CLASSES OF HIGH SCHOOLS. 1923–1924

	First Class High Schools	Second Class High Schools	Third Class High Schools
Median Per Cent Normal	56	53	52
Median Per Cent Over Age ...	21	24	27
Median Per Cent Under Age ..	21	22	19

It will be seen that over-ageness increases with the decrease in size of high school. These five schools are even worse off in this respect than are the majority of small schools of the state. The causes for the condition depicted here are not entirely clear. It is possible that economic pressure is not so great as in the larger centers. It may be due to the particular standards or lack of standards of the teachers employed here or there may be other causes. There is need for further investigation on this point.

RESULTS OF STANDARD TESTS

The standard tests used in this study were not administered under the delusion that they are perfect instruments of measurements. Obviously they are not. Arguments relative to the reliability or validity of standard tests can well be referred to specialists in the field of measurement. Standard tests have been used in these schools simply because there are reasons to believe they are the best measuring devices which have been made available up to this time. Faulty or inaccurate as they may be, their use is certainly preferable to placing reliance on mere guesswork or unsupported opinion.

Mental Ability

The Terman Group Test of Mental Ability was given to all pupils in all of these schools. The results for Grades 9, 10, 11, and 12 are given in Tables XXXIV to XXXVII.

[2] *Educational Surveys*, page 167.

TABLE XXXIV

RESULTS OF THE TERMAN GROUP TEST OF MENTAL ABILITY AMONG ALL TWELFTH GRADE PUPILS IN THESE SCHOOLS

	Norms	School A	School B	School C
1	% equal or exceed 207			
2½	" " " " 200		1	
5	" " " " 194			
10	" " " " 185	1	1	
15	" " " " 179			
20	" " " " 174			
U.Q. 25	" " " " 169			
30	" " " " 165			
40	" " " " 156	2	2 (Med)	
M. 50	" " " " 147	1	1	1
60	" " " " 138		2	
70	" " " " 128	2		
L.Q. 75	" " " " 122			2 (Med)
80	" " " " 115	5 (Med)		
85	" " " " 109			
90	" " " " 100	1		
95	" " " " 86			
97½	" " " " 74	1		1
99	" " " " 63	1		
	Number of Cases	14	7	5

TABLE XXXV

RESULTS OF THE TERMAN GROUP TEST OF MENTAL ABILITY AMONG ALL ELEVENTH GRADE PUPILS IN THESE SCHOOLS

	Norms	School A	School B	School C	School D
1	% equal or exceed 203				1
2½	" " " " 196				
5	" " " " 189	1			
10	" " " " 180	1			1 (Med)
15	" " " " 174	1			
20	" " " " 168	1		1	1
U.Q. 25	" " " " 163				
30	" " " " 158	3 (Med)			
40	" " " " 147	1	2 (Med)		
M. 50	" " " " 138	1			
60	" " " " 128		1		
70	" " " " 118	1	1	2 (Med)	
L.Q. 75	" " " " 112	1			
80	" " " " 105	2		2	
85	" " " " 99				
90	" " " " 90				
95	" " " " 77				
97½	" " " " 66				
99	" " " " 55			2	
	Number of Cases	12	6	8	3

TABLE XXXVI

RESULTS OF THE TERMAN GROUP TEST OF MENTAL ABILITY AMONG ALL TENTH GRADE PUPILS IN THESE SCHOOLS

	Norms		School A	School B	School C	School D	School E
1	% equal or exceed	194					
2½	" " " "	185					
5	" " " "	177		1			
10	" " " "	166	1	1		1	1
15	" " " "	159					
20	" " " "	152		1		1	
U.Q. 25	" " " "	147	4			1	
30	" " " "	141			1		
40	" " " "	131		1 (Med)			
M. 50	" " " "	122	1 (Med)	1			
60	" " " "	113	1	1	2	2 (Med)	
70	" " " "	103	2				1 (Med)
L.Q. 75	" " " "	98			1 (Med)		1
60	" " " "	92			1		1
85	" " " "	86	1	2			
90	" " " "	79	1		2	1	
95	" " " "	67			1	1	
97½	" " " "	58					1
99	" " " "	48					
	Number of Cases	11		8	8	7	6

TABLE XXXVII

RESULTS OF THE TERMAN GROUP TEST OF MENTAL ABILITY AMONG ALL NINTH GRADE PUPILS IN THESE SCHOOLS

	Norms		School A	School B	School C	School D	School E
1	% equal or exceed	181					
2½	" " " "	172					
5	" " " "	164	1			2	
10	" " " "	151		1		2	
15	" " " "	142		2		1 (Med)	
20	" " " "	135	2			1	
U.Q. 25	" " " "	128	1	1	1		
30	" " " "	123		1	2	1	
40	" " " "	113	2			1	1
M. 50	" " " "	104		1	1	1	
60	" " " "	92	2 (Med)	3 (Med)		1	1
70	" " " "	86	3	1			
L.Q. 75	" " " "	81	1	1			1 (Med)
80	" " " "	76		1			1
85	" " " "	1		1			1
90	" " " "	63					1
95	" " " "	53			4 (Med)		
97½	" " " "	44			1		
99	" " " "	35					
	Number of Cases		13	13	9	10	6

The small number of cases in each grade must be taken into account when considering the scores made on this test. If the raw scores alone are considered the exact medians for each grade in each school are as given in Table XXXVIII.

TABLE XXXVIII

EXACT MEDIANS OF EACH GRADE ON THE TERMAN GROUP TEST

Grade	Norm	School A	School B	School C	School D	School E
12	147	120.0	156.0	123.0		
11	138	149.5	148.0	109.5	185.0	
10	122	124.0	130.5	95.5	119.0	102.5
9	104	100.0	103.0	59.0	143.0	80.0

Three facts should be noted in connection with Table XXXVIII:

1. There is a wide range among schools. This range is 36 points in the twelfth grade; 75.5 points in the eleventh grade; 30 points in the tenth grade; and 84 points in the ninth grade.
2. The showings made by School C and School E are much the worst of the group. To what may their very poor showing be attributed? If the validity of the test be granted, one of two things is true. Either the boys and girls of these two communities are actually less intelligent than those of the other communities or Schools C and E are not attracting their more intelligent pupils.
3. All the schools show an increase from year to year except School A—grade 12, and School D—grade 10.

Table XXXIX gives a composite picture of the pupils of all grades. The scores of each grade are compared with its norm. These show a slight tendency to skew upward from the curve of the country as a whole; that is, the cases pile up at the lower end as shown by the greater lag behind the norm of the Q_3 than the Q_1. It should be noted that the curve tends to flatten out, so that instead of Q being 25 per cent it is 26.4 per cent. Taking all of these data into consideration, it appears that the group is of average or normal intelligence. The unevenness of the children within a given school and of one school as compared with another is startling. Are these startling differences inherent or are they either largely or in part due to the schooling that is

TABLE XXXIX

TOTAL SCORES OF ALL GRADES COMPARED WITH THEIR RESPECTIVE NORMS

Grade 12	Grade 11	Grade 10	Grade 9	Total Number	Normally Expected Number
	1			1	1.46
1				1	2.19
	1	1	3	5	3.65
2	2	4	3	11	7.30
	2		3	5	7.30
	3	2	3	8	7.30
		5	3	8	7.30
	3	1	4	8	7.30
4	3	2	4	13	14.60
3	1	2	3	9	14.60
2	1	6	7	16	14.60
2	4	3	4	13	14.60
2	1	2	3	8	7.30
6	4	2	2	14	7.30
		3	3	6	7.30
1		4	1	6	7.30
		2	4	6	7.30
2		1	1	4	3.65
	2			2	2.19
1	1			2	1.46
			Total Number of Cases	146	

Q_1 equals 28.44 percentile Q_3 equals 81.25 percentile
Q_2 equals 62.50 percentile Q equals 26.40 per cent

being provided? Another vital question is, To what extent are these schools ministering to the widely varying needs of their pupils? Are the less able pupils being given work they can accomplish with satisfaction? Are the bright pupils being given work that tests their ability and challenges their interest?

Reading

The Haggerty Reading Examination (Sigma 3) was given to all pupils in all of these schools. The results for each grade with the norm is given in Table XL.

Of the seventeen grade groups in these five schools two have made scores that equal or exceed the norm. They are the eleventh grade in School D and the tenth grade in School B. The other fifteen groups are from forty-four to seven points below standard for their grades.

TABLE XL

RESULTS OF THE HAGGERTY READING EXAMINATION (SIGMA 3) IN ALL SCHOOLS

	Standard	School A	School B	School C	School D	School E
Grade 12	118.0	90.0	95.0	92.0		
Grade 11	112.0	94.0	104.0	68.0	119.0	
Grade 10	104.0	83.0	105.5	70.0	97.0	86.5
Grade 9	93.0	86.0	75.0	66.5	84.2	71.0

Spelling

List XVI[3] of the Sixteen Spelling Scales was given to all pupils in all of the schools. The results are indicated in Table XLI.

TABLE XLI

RESULTS OF THE SPELLING SCALE IN ALL SCHOOLS IN PER CENT OF CORRECT SPELLINGS

	February Standard	School A	School B	School C	School D	School E
Grade 12	72.14	60.9	55.0	57.0		
Grade 11	67.00	52.7	76.2	43.6	55.0	
Grade 10	61.48	51.1	56.6	44.3	42.0	48.0
Grade 9	53.91	39.3	51.0	53.0	47.5	41.5

Of the seventeen classes in English, just one class (Grade 11—School B) is up to standard. The other sixteen classes are from 2.91 to 20.91 per cent below. On the whole the best showing was made by School B, while the worst was that of School C.

The Briggs English Form Test (Alpha) was given to all pupils in all schools. The results, expressed in per cents of errors, are given in Tables XLII to XLV inclusive.

TABLE XLII

PER CENT OF ERRORS ON FORM TEST IN ALL TWELFTH GRADES

Twelfth Grades in All Schools Offering Four Years' Work

Percentage of Error on:	School A	School B	School C	Standard (130 pupils)
A. Initial Capital	0	0	0	.3
B. Terminal Period	1.4	14.2	0	3.2
C. Terminal Question Mark	2.8	5.7	0	5.5
D. Capital for Proper Noun or Adjective	41.4	28.5	66.6	30.0
E. Run-on Sentence	32.8	22.8	66.6	20.0
F. Apostrophe of Possession	54.2	59.9	59.9	52.2
G. Comma before *but*	37.1	2.8	39.9	23.2
Total	24.2	19.1	33.7	18.0

[3] List XV was also given to all pupils. Analysis of the scores brings substantially the same results as were derived from List XVI. Hence the detailed results are omitted.

Other norms based on a larger number of cases being unavailable, comparison is made with the scores of 130 twelfth grade pupils tested under the direction of Dr. Woody. Taking these scores as a standard, none of the schools is securing the results that should be expected. The rank of these three schools is in the order B, A, C.

TABLE XLIII

PER CENT OF ERRORS ON FORM TEST IN ALL ELEVENTH GRADES

Eleventh Grades in All Schools Offering Three Years' Work

Percentage of Error on:	School A	School B	School C	School D	Standard (241 pupils)
A. Initial Capital	0	0	0	0	.3
B. Terminal Period	0	3.3	2.2	0	3.0
C. Terminal Question Mark	8.3	3.3	15.5	13.3	4.2
D. Capital for Proper Noun or Adjective	48.3	66.6	71.1	33.3	30.8
E. Run-on Sentence	20.0	33.3	52.3	66.6	20.6
F. Apostrophe of Possession	56.6	33.3	93.3	80.0	46.3
G. Comma before *but*	44.9	3.3	15.5	53.3	23.2
Total	25.4	20.4	37.1	35.2	18.3

The standards used as a basis of comparison for the eleventh grades are those attained by several Michigan cities (tests given under the direction of Dr. Clifford Woody). The eleventh grades of these five schools are all below these standards. School B comes nearest to it, while Schools C and D are very far below.

TABLE XLIV

PER CENT OF ERROR ON FORM TEST IN ALL TENTH GRADES IN ALL SCHOOLS

Percentage of Error on:	School A	School B	School C	School D	School E	Standard (Low X–Jan.)
A. Initial Capital	0	0	0	0	20.0	.7
B. Terminal Period	0	0	0	28.6	10.0	8.1
C. Terminal Question Mark	10.0	5.0	27.0	8.6	3.3	2.6
D. Capital for Proper Noun or Adjective	52.0	37.5	82.5	62.8	56.6	45.9
E. Run-on Sentence	26.0	7.5	60.0	54.3	42.3	23.6
F. Apostrophe of Possession	56.0	42.5	85.0	65.7	73.3	49.4
G. Comma before *but*	22.0	20.0	37.5	40.0	46.6	21.3
Total	23.7	16.0	41.7	37.1	36.0	21.7

The tenth grade of School B is 5.7 per cent above standard. All of the other tenth grades are below: School A is 2 per cent below; School E is 14.3 per cent below; School D is 15.4 per cent below; while School D is exactly 20 per cent below.

TABLE XLV

PER CENT OF ERROR ON FORM TEST IN ALL NINTH GRADES IN ALL SCHOOLS

Percentage of Error on:	School A	School B	School C	School D	School E	Standard (4236 pupils)
A. Initial Capital ...	1.4	0	0	2.0	0	1.0
B. Terminal Period ..	1.4	0	7.5	44.0	0	2.1
C. Terminal Question Mark	4.2	3.0	16.5	16.0	10.0	8.5
D. Capital for Proper Noun or Adjective	41.4	89.1	77.5	54.0	83.3	52.7
E. Run-on Sentence .	44.2	10.7	70.0	68.0	53.3	29.8
F. Apostrophe of Possession	69.9	75.3	80.0	70.0	96.6	58.4
G. Comma before *but*	45.6	1.5	40.0	68.0	43.3	20.9
Total	29.7	25.7	41.6	46.0	40.9	24.8

Examination of Table XLV shows that in general the results of instruction in these schools in the use of Initial Capital, the Terminal Period, and the Terminal Question Mark are slightly above the norms for this grade. The results on the other four items are very much below standard. School B approaches the standard; School A is slightly below; while Schools C, D, and E are very much below.

Summary of Results of Briggs English Form Test (Alpha)

There is a total of seventeen classes in English in the five schools. The scores made by these classes were compared with the best established norms that are available. On the basis of that comparison only one class (Grade 10—School B) is above the standard. All of the other sixteen classes are below standard. The rank of these classes is as follows:

Rank	Grade 9	Grade 10	Grade 11	Grade 12
1	B	B	B	B
2	A	A	A	A
3	E	E	D	C
4	C	D	C	
5	D	C		

The showing made by School B is quite creditable. Schools C, D, and E are very far below the standard in the use of these seven elements of form that are essential in composition.

English Composition

As a means of determining the quality of the work in composition, all of the pupils in all of these schools were given thirty minutes to write a composition for scaling. The subject assigned was "The Most Exciting Ride I Ever Had." The resulting compositions were rated by three judges, all of whom had had training and experience in the use of the Hudelson English Composition Scale. The norms for this scale and the median score assigned by these judges for each class in each school are given in Table XLVI.

TABLE XLVI

RESULTS OF INSTRUCTION IN COMPOSITION AS SHOWN BY THE HUDELSON SCALE

Norm	Grade 6 4.2	Grade 7 4.7	Grade 8 5.3	Grade 9 5.5	Grade 10 5.9	Grade 11 6.3	Grade 12 6.7	Month January
School A	--	--	--	4.2	5.0	5.1	6.0	
School B	--	--	--	4.6	5.8	6.1	5.3	
School C	--	--	--	4.3	4.4	4.0	5.8	
School D	--	--	--	4.4	5.4	3.9		
School E	--	--	--	5.0	5.0			

A glance at Table XLVI shows that all of these classes are below standard. Out of a total of seventeen classes in English in these five schools, six are three or more years below standard, six are two years below, while two are one year below. Only two classes even approach the standard. They are the tenth and eleventh grades of School B. The record made by School C is the worst, while those of School A and School D are little better.

Vocabulary

The I.E.R. Graded Test of Word Knowledge (Form 2-A) was given to all pupils. The scores made are shown in Tables XLVII to L inclusive.

Well-established norms are not yet available for the I.E.R. Test. All that can be said in this connection is that the scores for these five schools are consistently from three to six words lower than the tentative norms that are at hand. Since these norms are not well established, too much dependence should not

TABLE XLVII

SCORES ON I.E.R. TEST MADE BY TWELFTH GRADES IN SCHOOLS OFFERING FOUR YEARS' WORK

Score	School A	School B	School C
70	--	--	--
65	--	--	--
60	--	1	--
55	--	1	1
50	3	--	1
45	4	2	1
40	3	--	--
35	--	2	1
30	2	1	--
Medians	45.0	48.0	50.0

Median of all Twelfth Grade scores 47.0

TABLE XLVIII

SCORES ON I.E.R. TEST MADE BY ELEVENTH GRADES IN SCHOOLS OFFERING THREE YEARS' WORK

Score	School A	School B	School C	School D
70	--	--	--	--
65	--	--	--	--
60	--	--	--	1
55	1	--	1	2
50	2	1	1	--
45	3	3	--	--
40	4	2	--	--
35	1	1	2	--
30	--	--	1	--
25	1	--	1	--
Medians	44.5	45.0	37.0	55.0

Median of all Eleventh Grade scores 45.5

TABLE XLIX

SCORES ON I. E. R. TEST MADE BY TENTH GRADES IN ALL SCHOOLS

Score	School A	School B	School C	School D	School E
70	--	--	--	--	--
65	--	--	--	--	--
60	--	--	--	--	--
55	--	1	--	--	1
50	1	1	--	1	1
45	--	2	1	--	--
40	5	1	2	4	--
35	3	1	1	1	3
30	1	--	1	1	1
25	1	1	1		
Medians	40.0	48.0	38.5	40.0	37.0

Median of all Tenth Grade scores 40.0

TABLE L

SCORES ON I. E. R. TEST MADE BY NINTH GRADES IN ALL SCHOOLS

Score	School A	School B	School C	School D	School E
70	--	--	--	--	--
65	--	--	--	--	--
60	--	--	--	--	--
55	--	--	--	--	--
50	2	1	--	2	--
45	--	2	--	3	--
40	2	1	2	1	1
35	5	3	1	4	1
30	--	4	2	--	1
25	2	2	1	--	1
20	1	--	1	--	2
Medians	37.0	36.0	31.0	45.0	27.0

Median of all Ninth Grade scores 37.0

be placed on them. However, these tests bring out certain conditions that are worthy of note aside from any comparison that may be made with other schools. There is considerable variation among the schools, the average in medians ranging from approximately 33.5 in School E to approximately 44.6 in School D. The poorest showing is made by Schools C and E. The yearly increment is very small, being 3.3 words or points per year. That there is a total increase of only ten points or words in three full years certainly is cause for concern over the quality and amount of work being done in these schools.

Latin

The Lohr-Latshaw Latin Form Test is intended for high school pupils who have finished First Year Latin. This test was administered in Schools A, B, C, and D. The results are given in Table LI.

TABLE LI

AVERAGE NUMBER OF CORRECT RESPONSES ON THE LOHR-LATSHAW LATIN FORM TEST

School	First Year		Second Year		Third Year		Fourth Year	
	Pupils	Av. Score	Pupils	Av. Score	Pupils	Av. Score	Pupils	Av. Score
No. Carolina	700 (total)		1	10.0		13.0		15.0
New York and Pennsylvania	1,321	19.6	459	19.9				
Philadelphia	743	17.4	458	19.8				
White Plains	76	17.4						
DeWitt Clinton	142	23.3						
Brooklyn Boys	216	25.0						
Horace Mann Girls	28	30.5						
School A	9	12.0	8	21.0	6	17.0	8	13.0
School B	7	22.0	4	16.5			2	27.0
School C	9	2.0	7	2.0	6	4.0	4	0.
School D	8	6.0	6	15.5			1	20.0

The norms for North Carolina are tentative January norms. Unfortunately the norms for the third and fourth years are not well established. Analysis of Table LI shows that the first year classes of Schools A, C, and D are considerably below the grades of the larger urban schools. The first year class of School B is far above the first year classes of Schools A, C, and D. In the work of the second year School A makes a very fine showing. The other three schools are below the norm. Special attention should be called to the showing made by the twenty-six pupils

in School C. Judged by the evidence of this test, the pupils of the first, second, and third year classes know little about Latin forms, while the fourth year class knows even less. The regression can be partially accounted for by the fact that the fundamental forms are emphasized most during the first year's work. Briggs [4] reports a similar situation in certain North Carolina schools. But the situation in School C can hardly be accounted for in this way. It is more reasonable to attribute these extremely low scores to the method employed by the teacher in charge of these classes.

TABLE LII

RESULTS IN LATIN AS SHOWN BY THE WHITE LATIN TEST

School	1st Year	2nd Year	3rd Year	4th Year
Norms*...	84	121	147	167
A	82.0	107.0	90.0	111.0
B	72.5	93.0	----	137.0
C	30.0	55.5	85.5	66.0
D	60.5	93.5	120.0	----

* The norms used here are based on 1200 cases and are given in the manual published in 1924. Additional scores have influenced the norms but little. A statement from the author of the test, written in February, 1926, indicates a belief that the norms of the last two years should be slightly higher than those given in the manual.

According to this test, none of these classes in Latin is up to standard. A total of fourteen classes were given this test. Exactly half of them were a full year or more below standard. By far the poorest showing was made by School C. Of the four classes in this school the third year class alone equals or exceeds the standard for a first year class. The others, a first year class, a second year class, and a fourth year class, are very far below the standard set for pupils who have had only two semesters of work in the subject. All of the fourth year classes and all of the third year classes in Latin in these four schools are at least a full year behind.

Algebra

The Hotz First Year Algebra Scale was given to all pupils taking first year algebra at the time of this study. Because of the time element, Series A was used rather than Series B. All five tests of the series were used with the results as indicated in Table LIII.

[4] Thomas H. Briggs, "The Lohr-Latshaw Latin Test," *The Classical Journal*, Vol. XVIII (May, 1923).

TABLE LIII

RESULTS OF HOTZ FIRST YEAR ALGEBRA SCALE (SERIES A) IN ALL SCHOOLS

	School A	School B	School C	School D	School E
Addition and Subtraction					
Standards					
Author's Norm 7.9					
Illinois Cities 6.9	5.0	6.0	5.0	6.5	5.0
Fayetteville, Ark. 7.5 (University H.S.)					
Little Rock, Ark. 6.0					
Multiplication and Division					
Standards					
Author's Norm 7.9					
Illinois Cities 7.2					
Athens, Ohio 4.8	4.5	6.5	2.0	6.5	6.0
Fayetteville, Ark. 6.8 (University H.S.)					
Amsterdam,N.Y. 7.4					
Equation and Formula					
Standards					
Author's Norm 7.8					
Illinois Cities 7.7					
Little Rock, Ark. 6.8	5.5	7.0	6.0	6.0	5.5
Philadelphia, Pa. 6.8					
Amsterdam,N.Y. 8.1					
Graphs					
Standards					
Author's Norm 5.6					
Illinois Cities 6.2					
Fayetteville, Ark. 6.0 (University H.S.)	3.5	3.0	1.0	2.0	1.0
Wellington, Kans. 6.2					
Amsterdam,N.Y. 2.5					
Hackensack, N.J. 5.6					
Problems					
Standards					
Author's Norms 5.6					
Illinois Cities 6.4					
Athens, Ohio 2.5	3.0	4.0	2.0	4.5	3.5
Fayetteville,Ark. 6.2 (University H.S.)					
Amsterdam,N.Y. 5.5					

In general the scores made in these five schools are lower than the scores which are given in the Hotz Manual for classes for the ninth month of the year's work. The rank of these five schools, as determined by the medians of the total scores made by each, is as follows:

School	Median of Total Score
B	28.0
D	27.0
E	21.5
A	21.0
C	18.0

Geometry

Each of these high schools offers a course in plane geometry. A total of fifty-six pupils are enrolled in these courses. The Schorling-Sanford Achievement Test in Plane Geometry was given to all these pupils with the results as indicated in Table LIV.

TABLE LIV

RESULTS OF SCHORLING-SANFORD TEST IN PLANE GEOMETRY IN ALL SCHOOLS

Norm	School A	School B	School C	School D	School E
Q_1—25.0	17.0	16.5	7.0	11.5	10.0
M—30.6	22.0	20.5	10.5	14.0	11.5
Q_3—37.0	26.5	22.5	14.5	16.5	13.5

The highest total score that is possible on the test in plane geometry is 60. All of the schools are considerably below that standard. Schools A and B have made the best showing, while School C has made the poorest record.

French

School B and School D each offer two years' work in French. The Henmon French Tests were given to all pupils in the subject. The results are compared with the norms in Tables LV and LVI.

Analysis of the scores made on the vocabulary test shows both schools to be below the norm. The work of School B is appreciably better than that of School D throughout this first year. The pupils of the French class in School B are slightly above the norm in ability to handle the sentence test; those in School D are below standard. The number of pupils in the first year

French classes of Schools B and D are nine and seven, respectively.

TABLE LV

RESULTS OF HENMON FRENCH TEST

(*First Year Pupils*)

	Standard *	School B	School D
Vocabulary			
Sum of Scale Values	88.0	84.4	71.5
Number Right	32.0	31.0	29.0
Per Cent Right	53.0	52.0	48.3
Sentences			
Sum of Scale Values	13.0	14.3	7.7
Number Right	5.5	6.0	5.0
Per Cent Right	46.0	50.0	41.6

* The norms used here were furnished by Dr. Henmon in January, 1926, and are based upon 4000 more cases than are the previously published norms.

The results for the second year's work in French are shown in Table LVI.

TABLE LVI

RESULTS OF HENMON FRENCH TEST

(*Second Year Pupils*)

	Standard	School B	School D
Vocabulary			
Sum of Scale Values	134.0	143.6	126.5
Number Right	48.0	51.0	43.5
Per Cent Right	80.0	85.0	71.0
Sentences			
Sum of Scale Values	24.0	18.5	24.2
Number Right	8.0	8.0	9.0
Per Cent Right	67.0	67.0	75.0

On the whole the record made by both second year classes is very satisfactory. Their showing is very much better than the showing of the first year class. There are three pupils in the second year class of School B and four in the second year class of School D.

Science

The opportunity to investigate the quality of the work in the science courses was not as favorable as in the other courses or

departments. This was not caused by any lack of willingness to coöperate by those in charge of the work; instead it was due to their uniform willingness to admit that the work was not up to standard, combined with the feeling that it would be a waste of time to test what was admitted to be below par. The statement by the principal of School C, "All the test will show is that our students know very little about science," expresses the general attitude of all who were in charge of the science classes. The science teacher of School A said, "I know these students will not make a good showing on the tests and I prefer that they do not take them." [5]

It is unfortunate that no more evidence of an objective nature is on hand relative to the science in these schools. Such evidence as is available on chemistry, biology, and general science shows that there is cause for real concern regarding the quality of the work.

General Science

The Ruch Popenoe General Science Test was given the general science classes of Schools B, D, and E. The tentative norms on these tests are as follows:

10% of pupils reach or exceed 53.4
25% of pupils reach or exceed 44.6
50% of pupils reach or exceed 34.7
75% of pupils reach or exceed 24.9
90% of pupils reach or exceed 18.8

The results of this test are given in Table LVII.

TABLE LVII

RESULTS OF THE RUCH POPENOE GENERAL SCIENCE TEST

	School B	School D	School E
Q_1	24.0	20.0	12.5
M	32.5	23.2	17.5
Q_3	34.2	29.0	22.2

The scores made on this test, while not necessarily conclusive, offer at least some evidence as to the quality of work in this subject. They indicate that School B's work in general science is superior to that of Schools D and E. All three of the schools are below the standard in the quality of their general science

[5] The sincerity of this statement can hardly be questioned. The principal of School A states that 65.4 of the pupils in the class in physics failed to receive a passing mark for the year.

work. Of the eighteen pupils in the class of School D, 88 per cent are below normal in achievement, while all of the general science pupils of School E are below the 75 percentile.

Chemistry

But little work in chemistry is being offered in these schools during the current year. The subject receives by far the most emphasis in School B, which has very much more in the way of facilities for presenting the subject than is found in the other schools. The Powers General Chemistry Test was given to the twelve pupils who comprise the chemistry class of School B. According to the statement of Dr. Powers the norms for this test remain fairly constant at about 36 or 37, with a range for different schools of from about 25 to 50. The scores on this test in the chemistry class of School B range from 23 to 39 inclusive with the median score of 32. Although the number of pupils is not large, it should be noted that only two of the twelve cases equal or exceed the standard. In other words, 83 per cent of the pupils in this group are below the established norm for this test.

Biology

The Ruch-Cossmann Biology Test was given the biology classes at School B and School E. The latest norms on this test [6] are as follows:

Percentile	End of Year
10	23.1
25	30.2
50	39.6
75	53.0
90	63.7

The results of this test are given in Table LVIII.

TABLE LVIII

Results of the Ruch-Cossman Biology Test

	School B	School E
Q_1	24.0	20.0
M	32.0	25.5
Q_3	42.0	32.0

Judged by such evidence as this text furnishes, the work in biology is very much below standard.

[6] Norms furnished by Dr. Cossmann, January, 1926.

SUMMARY

Judged in the light of their practices these five schools have set up for themselves objectives which are identical to the objectives of the large urban schools.

Since the whole end and aim of a school is the instruction of its pupils, it can be accurately evaluated only by measuring the results of the instruction it gives. The purpose of this chapter has been to present such evidence as could be secured on the results which are being achieved by the instruction.

In attempting to measure these, attention was directed to the number of failures in each subject, the apparent drawing power of each school, the regularity of attendance, the amount of retardation and acceleration, and, finally, the showing made on fourteen standard tests.

There is wide variation in the number of failures in schools and subjects. The range is from 65.4 per cent in a single subject in School A to no failures in School E and only one in School D. Schools C, D, and E fail practically no pupils in their courses; they report a total of four subject failures for the year. This may be interpreted as meaning that in their estimate the course requirements are being satisfactorily met. The pupils of Schools A, B, and C come from a much greater distance than do the pupils of Schools D and E. All of the pupils of the latter schools reside within a half mile of the school. Because of a number of local conditions this fact must not be regarded as significant. The attendance varies from a percentage of 76.9 to a percentage of 99 plus.

The problem of maladjustment in the various grades is a very serious one. The Pennsylvania State Department recognizes that this problem is most serious in the small high school. These schools show a condition that is worse than the average small high school of the state. In Schools C and E more than half of the pupils are over-age. The results of the Terman Group Test show that the problem of these schools, so far as intelligence is concerned, is not lack of intelligence but rather the very great differences which exist among the pupils of the same grade. The poorest showing on this test was made by Schools C and E. Either the boys and girls of these two communities are actually less intelligent than the average or the schools are not offering

inducements strong enough to hold the brighter pupils. The need for a diversified offering is emphasized by the results of this test.

On the Haggerty Reading Examination (Sigma 3) two of the seventeen groups equal or exceed the norm. The other fifteen groups are from seven to forty-four points below the standard for their respective grades.

Of the seventeen classes in English to which the Sixteen Spelling Scales test was given, one class (Grade 11—School B) is up to standard. The other sixteen are from 2.91 per cent to 20.91 per cent below. The best showing was made by School B. The poorest was that of School C.

The results of the Briggs English Form Test (Alpha) show that on the whole only one class (Grade 10—School B) is above standard. All of the other English classes are below the standard attained by large schools.

According to the Hudelson Scale in Composition, all of the English classes are below standard. Six of the classes are three or more years below standard. Only two classes even approach the norm. They are the tenth and eleventh grades of School B. The poorest record on this scale was made by School C.

Comparison with such norms as are available shows that on the I.E.R. Graded Test of Word Knowledge (Form 2 A) all of the schools are consistently from three to six words below standard. There is wide variation among the schools. The increment is very small, being 3.3 words per year in each school.

The Lohr-Latshaw Latin Form Test was given to all Latin classes. The second year class of School A and the first year class of School B made a very fine showing. The other six first and second year classes are below standard. The large amount of regression in School C indicates that there is probably something seriously wrong with the instruction in that school.

On the White Latin Test all classes were below standard. Exactly half of the classes were a full year or more behind. The poorest showing was made by School C.

The Hotz First Year Algebra Scale was given to all pupils in first year algebra. In general the scores made are lower than those given in the Hotz Manual for ninth grade classes. The work done in graphs and problems was particularly poor.

All first year geometry pupils were given the Schorling-Sanford Test in Plane Geometry. All classes were considerably below

standard. Schools A and B made the best showing. The poorest was made by School C.

The Henmon French Test was given to all pupils studying French. There are two first year classes enrolling a total of sixteen pupils. Both are below the norm on the vocabulary test. One first year class is above the norm on the sentence test; the other is below. The two second year classes of Schools B and E, numbering three and four pupils respectively, made a very satisfactory showing. Better results are being obtained in French in the two schools which offer it than are being gotten in any other subject offered. The courses are optional. The four classes contain an average of about six pupils each.

The opportunity to test the work in science was somewhat limited by the extreme reluctance of certain teachers to test work which they candidly admitted was below standard. The Ruch-Popenoe General Science Test was given to the classes in Schools B, D, and E. All were considerably below standard.

The work in chemistry is limited. The Powers General Chemistry Test was given to the chemistry class of twelve pupils in School B. Only two of the twelve equalled or exceeded the median.

The Ruch-Cossmann Biology Test was given to the biology classes of Schools B and E and showed those classes to be very much below standard.

CHAPTER XI

EXTRA-CURRICULAR ACTIVITIES IN THESE SCHOOLS

The value of properly organized and directed extra-curricular activities, while not scientifically established, is now so generally recognized by students of secondary education that no space will be devoted to their defense or justification. Each year these activities receive more attention at the hands of those who wish the high school to render the maximum educational service to the boys and girls in its charge. There was a time when the contribution of the high school was almost entirely restricted to the work done in the classroom. That time is past. The value of a high school can no longer be determined merely by measuring the amount of learning in the various subjects. Careful account must also be taken of the activities, apart from the formal curriculum, in which the pupils participate.

What is the status of extra-curricular activities in these schools? What is the attitude of the teachers and principals toward them? What activities are found in these schools and how are they managed? Do they grow out of the subjects taught or are they totally separate from the courses offered? What is their effect upon the morale of the school and just what do they add to the value of secondary education in these communities? These questions must be answered in attempting to put an appraisal upon the extra-classroom work of these schools.

School A

The principal of School A believes extra-curricular activities to be an integral part of an efficient secondary school and is working energetically to develop a program of these activities which will be of interest to every boy and girl in his school. Judged by the statements of pupils, by the enthusiasm with which they participate, and by the general morale of the school, his plans are meeting with success. During the current year the pupils of School A have participated in the following activities.

The school literary society presents a program regularly one night of each month. This is open to the public and a fee of ten or fifteen cents is charged. An attempt is being made to get away from the traditional program. The debates are on live questions which are of vital interest to the townspeople as well as the pupils, and in other ways, the programs are planned with the interests of the audience in mind. That these programs are at least attracting the attention of the townspeople is evidenced by the fact that the average attendance at the meetings is from 100 to 125.

There is an Athletic Club for the boys and one for the girls. The Boys' Athletic Club is devoting most of its attention to track and baseball. Its members have spent considerable energy preparing a baseball diamond and in improving the athletic field in general. The Girls' Athletic Clubs is giving most of its attention to volley ball, soccer, and tennis. Through their efforts tennis courts have been provided and interest in that sport is increasing. The significant thing is that from improving the playground facilities the students have been led to the desire to improve the entire school grounds. This has resulted in a systematic attempt to beautify and improve the building and the grounds. Under the direction of the teacher of agriculture and his classes, trees and shrubbery have been secured and planted. With the aid of the manual training classes, materials were secured for the construction of footlights and other stage equipment. Naturally the pupils feel a genuine interest and a wholesome pride in the appearance of their school.

The school orchestra consists of twelve pieces. It is directed by one of the grade teachers and is a distinct credit to a school of this size. It adds much to the spirit of the school assemblies and is a prominent factor in other school programs and activities.

During the latter part of the school year the attention of all the pupils is directed toward the Play-Day Festival. The school has been actively promoting this with the idea of developing a better feeling among the nearby schools. The variety of events which are provided in the festival is sufficient to attract practically all. The events include the usual athletic games, field and track meets, and spelling matches and literary contests in addition.

A beginning has been made in organizing a school band. In

addition the principal has been able to secure the services of a patron of considerable musical ability with the result that an operetta, which caused much favorable comment, was given by the high school pupils.

In December the high school pupils assume the chief responsibility for the preparation of a Christmas tree and a program for the entertainment of the entire twelve grades. The building in which the entire school is housed is the gift of a public-spirited man of the town. Accordingly, the regular work of the school is put aside one day of each year, and the entire school, and as many patrons as can be interested, join in honoring the name of the founder and in paying tribute to the services he rendered to the town and the school. A special effort is made at this time to put the school and its work in the best light possible before the townspeople.

The school assemblies are planned so as to secure a large degree of pupil participation. The singing is spirited and the programs of general interest.

The problems of finance, in connection with these activities, are largely solved by the activities themselves. Although the prices charged the public for admission are invariably low, slightly more than one thousand dollars has been paid into the school funds during the school year. About half of this has been spent for expenses for the different programs and productions, leaving a balance of $500 to be used for purposes which met the approval of the pupils and teachers. Special attention is now being given to the needs of the school library. As money is collected from the different sources it goes into a general fund and is therefore available for use where needed without unnecessary restrictions. The accounts are kept under the direction of the principal, and accurate information as to the school finances is available. The school has been active in its support of the Lyceum Course and has sponsored it during the present year.

All of the activities in this school are carefully supervised and directed by the three members of the staff. These responsibilities are so apportioned as to avoid injustice and give each teacher the opportunity to sponsor the activity in which there is natural interest.

The very fine morale observed in this school has been discussed at length in Chapter VII. The spirit of cheerful coöperation, the

willingness to assume responsibility for proper self-direction, the courtesy and consideration shown toward each other and the teaching staff, entitle this school to a rank considerably above the other four schools in this study.

School B

In School B much less attention is given to pupil activities. There is a literary society which meets about twice each month at which traditional literary programs are rendered. In past years both boys and girls have had basket-ball teams, but only the boys' team has been active this year. It has played a regular schedule of Friday night games during the season. Each year the school sends entries to the two field meets which are held under the auspices of neighboring institutions. These field meets with the basket-ball comprise the total of athletics for the school. A limited amount of attention is given to dramatics, one play being given during the year. Accounts are kept of the money derived from student affairs and misuse of funds is avoided by careful supervision. All funds are kept in a general fund available for school projects which are considered worthy. The assemblies are almost entirely conducted by the pupils themselves, the faculty playing only an inconspicuous part.

The chief adverse criticism to be made against the extra-curricular activities of School B is that they are too limited. Restricted as they are at present, they do not appeal to a very large number of the pupils. Indeed, the evidence indicates that less than fifty per cent of the pupils actively participate in any of them. The principal of School B is cognizant of this weakness and is making efforts to enlarge the program and so give it a wider appeal.

School C

It is difficult to believe that the pupil activities of School C are of any real value to the boys and girls of that school. There are three reasons which, it is believed, justify this statement. First, they are exceedingly limited. Second, they create little or no enthusiasm on the part of students. Third, from an educational standpoint they are unmanaged or mismanaged.

What athletics the school has is represented by a baseball

team. No one directs it. The boys "match games" with neighboring schools or teams. No attention seems to be paid to eligibility rules. The finances of the team are not a matter of record. No one seems to know exactly how much money is on hand or, indeed, if there is any. Members of the team make purchases of equipment without authorization and without record. Instead of being properly managed by the principal or by some one under his direction, the team seems to be mismanaging itself.

The English classes issued what they termed a school paper four or five times during the present year. In reality, it consists of a collection of what are considered the better specimens of work done in the English classes. It is in long hand. Only one copy is issued and that is used solely for exhibition purposes. The expenditure of a few dollars for a hectograph or some other simple duplicating device and a change in the management of the paper might make this of genuine value to the school. At the present time, so far as influencing pupil opinion or affecting the morale of the school is concerned, its value is nil.

School C opens its sessions each morning with an assembly. The program for the first assembly observed was as follows:

Attendance taken by the principal
Song led by the principal
Scripture reading (Jeremiah 8:1–10) by pupil
School repeats the Lord's Prayer
Song led by the principal
Song led by the principal
Students sent to classes by principal

All of the assemblies witnessed were exact duplicates of this, except that the songs and Scripture readings varied. If the selection of the songs to be sung, or the choice of Scripture to be read, was receiving any attention from either the principal or his assistant there was not the slightest evidence of it. The whole exercise was mechanical, dull, and lifeless. It is hard to imagine that it exerted any helpful spiritual influence. Viewed from an educational standpoint, the time spent was wasted or worse than wasted.

There was one activity of the school year in which the majority of pupils joined with enthusiasm. That was a picnic held on a spring Saturday.

School D

Careful investigation brings to light only two activities in School D which could with any reason be included in this discussion. They are school assemblies and a minstrel show. The assemblies are almost identical with those of School C. The minstrel show was given in the spring to raise money to purchase additional books for the school library.

School E

School E holds assemblies which are similar to those of School C and School D, and, in addition, has a literary society to which all of its twelve pupils, by compulsion, belong. This society meets and gives a program once each month. These meetings are open to the public and sometimes as many as three or four patrons are present.

It is not surprising that of the fourteen pupils who comprised the ninth grade in this school two years ago, eight did not return to finish the tenth grade. When one sees the building in which the school is conducted, observes the handicaps under which the principal works, notes the value of the courses offered, and sizes up the general situation, there is more cause for surprise that as many as six of the fourteen actually did return to finish the second year's work. The amazing thing is that less than fifteen minutes' walk from the site of School E, in an adjacent town, is a high school enrolling over two hundred pupils. This larger school offers a number of comparatively well-planned curricula, has a good school plant with satisfactory equipment, and provides a wide variety of activities outside of the classrooms.

While exercises connected with commencement are ordinarily omitted from studies of this nature, mention should be made of the practises observed in these five communities, because they illustrate the differences existing among these schools.

The commencement exercises held in these five schools are all traditional in their nature. It must be said, though, that the principal of School A is very skeptical of their value and is making plans for an entirely different type of exercise. He believes that it should be an occasion when the real work of the school should be set forth to the community and the merit and worth of a high school education be clearly shown to all. The other principals gave no evidence of dissatisfaction with their com-

mencements, and judged by the amount of time spent in preparation for the event, they consider them of value.

School E has a group of six pupils who are completing the work of the tenth grade. Much emphasis is put upon the graduating exercises, preparation for them having been begun a full month before the end of the term. Incidentally, the ninth grade pupils in this school are always referred to as Juniors and the pupils of the tenth grade are called Seniors. At commencement these pupils who are completing the work of the tenth grade are the objects of considerable attention. They wear caps and gowns and deliver addresses or orations on subjects such as "Women and International Peace," "Life Efficiency," and "Americanization." [1]

Considering the attention these boys and girls receive, it is not strange that they seem to feel that their education is virtually completed. Eleven pupils finished this two-year course in June, 1923. Only one of this number has gone ahead and finished the last two years of the high school course. Of six who completed the tenth grade and so graduated from School E in June, 1924, only one is in high school this year. It must be remembered that a fully accredited four-year high school is located less than a fifteen-minute walk from the site of School E and the Board of Education of School E pays the tuition of those pupils who finish the local tenth grade and wish to continue in the larger school so as to complete the four-year course. In the last two years seventeen pupils have been eligible to continue and arrangements have been made for their admission to the larger school. Only two have taken advantage of this opportunity. In the last two decades much has been said about the necessity of "bridging the gap" between the elementary school and the high school. The gap between the tenth grade and the eleventh grade in this community is so wide that in the last two years only two out of seventeen pupils successfully crossed it.

One is justified in wondering to just what extent this condition is caused by the type and spirit of the commencement held in the school and the content of the courses offered. The principal of School E not only tolerates this emphasis on commencement but actually encourages it on the grounds that "these boys and girls are entitled to recognition."

[1] These titles were taken from the commencement programs of the last two years.

The commencements of School C are similar in nature except that this is a four-year school. Its programs for the last two years include orations or addresses by members of the graduating class on "The Value of Education," "Animal Intelligence," "History of Agriculture," "Americanism," and similar subjects.

Careful investigation in these five schools failed to reveal any other extra-curricular activities than those which have been mentioned. Of those in charge of the education in these communities, the principal of School A and the principal of School B alone seemed to have any conception of the tremendous influence which may be exerted in a student body and throughout a community by a carefully planned and wisely directed program which aims to take care of the pupils' time and interests outside of the classroom. Of these five schools, School A alone has what can honestly be considered a real program for its pupils.

To what may this be attributed? How can we account for the fact that School A ranks so far above the others in this respect? The following factors may be determining causes.

1. Judged by his statements and his efforts, the principal of School A is more alive to the value of these activities than are any of the other principals.
2. The teachers of School A are more interested than were the other teachers.
3. School A possesses physical advantages which are decidedly superior to those of the other schools. These include a satisfactory auditorium, a reasonably well equipped stage, and surroundings that are wholesome and attractive.
4. This school is larger than the other schools. The enrollment of Schools A, B, C, D, and E are respectively 54, 41, 32, 26, and 12.

SUMMARY

Of the principals in these schools those in charge of School A and School B alone seem to consider extra-curricular activities an integral part of a modern high school.

School A alone offers to its pupils a real program in these activities. Its program is rather well planned, appeals to practically all, and is carefully supervised and directed. Responsibility for sponsoring these activities is equitably divided among the three

members of the teaching staff. As has been pointed out in Chapter VI, the morale of School A is excellent.

All of the evidence indicates that the student activities in Schools C, D, and E are of little or no educational value.

The commencement exercises in all of these schools are of a traditional nature and in the case of School E are believed to be thoroughly vicious in their effect upon the graduating class and the school in general.

The fact that School A ranks so far above the other four schools in the number and value of its extra-curricular activities may be due to a combination of factors, such as enthusiasm and ability on the part of its faculty, an understanding of the principles underlying the activities and a belief in their value, better physical equipment with which to work, and a larger number of pupils.

CHAPTER XII

SUMMARY OF CONCLUSIONS

At the outset it should be clearly understood that such conclusions as are reached as a result of this investigation apply only to the five schools included in the study and not to small high schools in general.

In making arrangements for the study there was an honest effort to find schools which were generally conceded to be better than the majority of institutions in their class. While this study does not clearly establish the superiority of these schools as compared with other small high schools of Pennsylvania, it does bring to light certain conditions which may be considered favorable to efficient work.

1. There is an absence of racial problems in these schools. All of the pupils are of the white race.
2. There are no foreign language problems in these schools. Practically all of the pupils are of native parentage.
3. The Boards of Education governing these schools seem to be made up of men and women who are genuinely interested in promoting education. Eighty-five per cent attend all meetings. Every principal described the local board as being thoroughly coöperative.
4. The relations existing between the five boards and their respective teaching staffs seemed to be extremely cordial and happy. There seemed to be mutual confidence.
5. The tenure of the teachers and principals in these schools is longer than it is in such schools as could be compared. All of these teachers and principals have been tendered new contracts for next year by their boards.
6. All of these schools have nine months or more in their yearly session. In this they stand out as being more fortunate than a majority of the small high schools of the state.
7. Wherever comparison with other small schools is possible

it shows that the academic training of these teachers is slightly above the average for schools of this class.

8. The teachers and principals have had more experience than is usual for those employed in schools of this class.
9. The average pupil-teacher load is extremely light when compared with most high schools.
10. The number of pupil recitations per teacher per week is very small as compared with other high schools.

It is believed that all of the foregoing points should contribute to the ease with which these schools accomplish their work. Certainly they should be kept in mind when studying the problems in these schools or in evaluating the results of the instruction given.

It is believed that the data gathered in this study justify the following conclusions relative to these schools and their communities.

1. None of these villages has made a serious attempt to provide wholesome recreation for its young people. There is a dearth of social life. Good roads, automobiles, and electric lines have made larger centers accessible and have served to lessen community activities. The evidence shows that there is serious need for progressive community leadership that at present is not being met.

2. There is considerable variation in the ability of these schools to support education and in their willingness to assume financial burdens for educational purposes. The present system of state aid is of some value to these districts, but does not compensate for the inequalities that exist. Saving could be effected by the adoption of the county unit in place of the district system now in use. Instructional costs are high, due to the limited number in the classes. Alternation of subjects has been used effectively in some cases, but could profitably be carried farther as a means of cutting down expense and increasing efficiency. In two cases extra expenses have been incurred through the introduction of a second foreign language.

3. The buildings occupied by these schools were erected an average of thirty-one years ago. They are poorly equipped and are educationally far behind the times. All of them lack features now considered essential in high school plants. Two of the five

should be abandoned so far as high school purposes are concerned. Although all of these schools offer courses in science, none are equipped to provide laboratory work. Responsibility for the library in each school rests on the principal. In each case the provision is below the standard set by the State Director of Libraries. The libraries of two schools are so far below standard as to be of doubtful value. All lack attractive, well-lighted, convenient quarters.

4. The amount of professional study and reading done by the teachers during the school year is admittedly small. Lack of time and energy due to the demands of the teaching schedule is given as the reason for little professional study and exceedingly limited participation in community life. All teachers and principals expressed the desire to secure a position in a larger school next year. The reasons given were the possibility of a larger salary, opportunity for specialization, a more satisfactory teaching schedule, better living conditions and more social advantages.

5. The visits of state department representatives to these schools are inspectional in their nature. The county superintendents and their assistants are able to render some assistance but claim that they, too, are forced to distribute their energies too widely. Both of these groups derive much of their information about these schools from the system of reports used.

6. According to the standards of the North Central Association of Colleges and Secondary Schools, all of the teachers and principals of these schools are overworked. Although the weekly pupil load per teacher is small, the number of classes and the number of preparations per teacher is much in excess of what it should be. In addition to teaching a heavy schedule each principal is the head of the local school system and so is nominally, at least, responsible for the direction of the grade work. None of these principals makes even a pretense of supervising the classroom work of his teachers.

7. Physical conditions are unfavorable for study at school. According to their own statements a majority of the pupils do very little studying at home. There is very little magazine reading either at home or at school. Seventy-five per cent of the pupils say they have no idea as to their future vocation.

8. The size of these schools has necessarily limited their curricula. The chief emphasis is upon preparation for entrance

to college, in spite of the fact that few of the pupils attend a higher institution. Foreign languages occupy a prominent place in four of the five schools, as much Latin as English being offered. Two of the schools not only offer as much Latin as English, but in addition offer two years of French. Only one school seems to have made any effort to adjust its courses to meet community needs. The subject matter offered in the various courses is almost wholly determined by textbooks in use.

9. In general, the teaching observed was extremely formal in nature. In most cases the presentation of material followed the arrangement in the textbook used. A majority of the teachers showed a tendency to monopolize the time of the recitation. Even though the numbers in the classes were small, participation was not general. Very little supplementary reading was required or expected. Current magazines received but little attention in these schools. Most of the work in science was based directly on the textbooks. Comparatively little laboratory work was offered in any school and in some of the schools none was provided. Facilities for teaching science were wholly inadequate. Such provision as was made for individual differences among pupils entirely neglects the bright pupil.

10. There is a wide variation in the number of failures among the pupils in these schools. It is notable that those schools whose pupils made the poorest showing on the subject matter tests were failing practically no pupils at the end of the year.

11. The serious need for diversified offerings is shown by the large percentage of over-age and under-age pupils. This is a serious problem in the small high schools of the state. The situation is worse in these five schools than in a majority of smaller schools in Pennsylvania.

12. The results of the intelligence tests would indicate that the problem is not one of low intelligence on the part of the pupils. It is rather the wide differences that exist among pupils of the same grade. Here again, is brought out the need for diversified offering which is not being met in these schools.

13. Tests designed to measure ability and achievement in reading, word recognition, spelling, composition, mechanics in English, knowledge of Latin forms, Latin translation, algebra, plane geometry, French, general science, chemistry, and biology were given. With the exception of some of the work in French

(involving two classes enrolling a total of seven pupils) and one or two other minor exceptions, all of the work is below standard. According to these tests, in more than half of the subjects tested every class in these five schools was below standard. The general situation so far as it is revealed by achievement tests is best shown by Table LIX.

TABLE LIX

NUMBER OF GROUPS WHICH EQUAL OR EXCEED THE NORM, AND NUMBER WHICH ARE BELOW THE NORM ON ACHIEVEMENT TESTS

Tests Used	Number of Groups or Classes Tested	Number of Groups Up to Standard or Above	Number of Groups Below Standard
Haggerty Reading Examination (Sigma 3) ...	17	2	15
Sixteen Spelling Scale	17	1	16
Briggs English Form Test (Alpha)	17	1	16
I.E.R. Graded Test of Word Knowledge (Form 2-A)	17	--	17
Hudelson English Composition Scale	17	--	17
Lohr-Latshaw Latin Form Test	15	1	15
White Latin Test	15	--	15
Hotz First Year Algebra Scale	5	--	5
Schorling-Sanford Test in Plane Geometry ...	5	--	5
Henmon French Test	4	2	2
Ruch Popenoe General Science Test	3	--	3
Powers General Chemistry Test	1	--	1
Ruch-Cossmann Biology Test	2	--	2
Totals	135	7	128

14. Only one of these schools is offering a real program of extra-curricular activities to its pupils. All of the evidence that could be gathered on this phase of the work indicates that the student activities in the majority of these schools have little or no educational value.

CONCLUDING STATEMENT

During the last thirty-five years the United States has gone seriously at the task of providing free secondary education for all its youth of high school age who are mentally equipped to benefit by such opportunity. A majority of our educational leaders are now committed to the principle that a democracy such as ours must provide equitable educational opportunity for all. The equitable distribution of educational advantage is not easy. Wide variation in both ability and willingness to support educa-

tion has made the problem an exceedingly difficult one. It has by no means been solved and thoughtful students have been and are greatly concerned over the inequality which quite obviously exists in different sections of the country, the various states, and even within the limits of a single county.

There is a general feeling that the rural boy and girl are being deprived of many of the educational advantages to which they are rightfully entitled. Very much adverse criticism has been directed toward the small rural or village high school and serious charges have been made against its efficiency. More than one-half million of our youth receive their secondary education in these small high schools, hence their importance as a part of our educational system can not be questioned.

Unfortunately the evidence with which to prove or disprove these charges is lacking. Very little is actually known about the small high school and its problems. This study attempts to describe the conditions actually found in a limited number of small schools. It can conservatively be said that the conditions revealed in these five schools are very far from satisfactory. The boys and girls in these schools are not receiving a square deal educationally. Regarding this statement there can be little argument.

While generalizations are to be studiously avoided, it is not too much to say that this study gives additional reasons for seriously questioning the value and the efficiency of the small high school in general. It clearly shows the need for further study and educational investigation of this very important part of our educational system.

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